

# The Guide

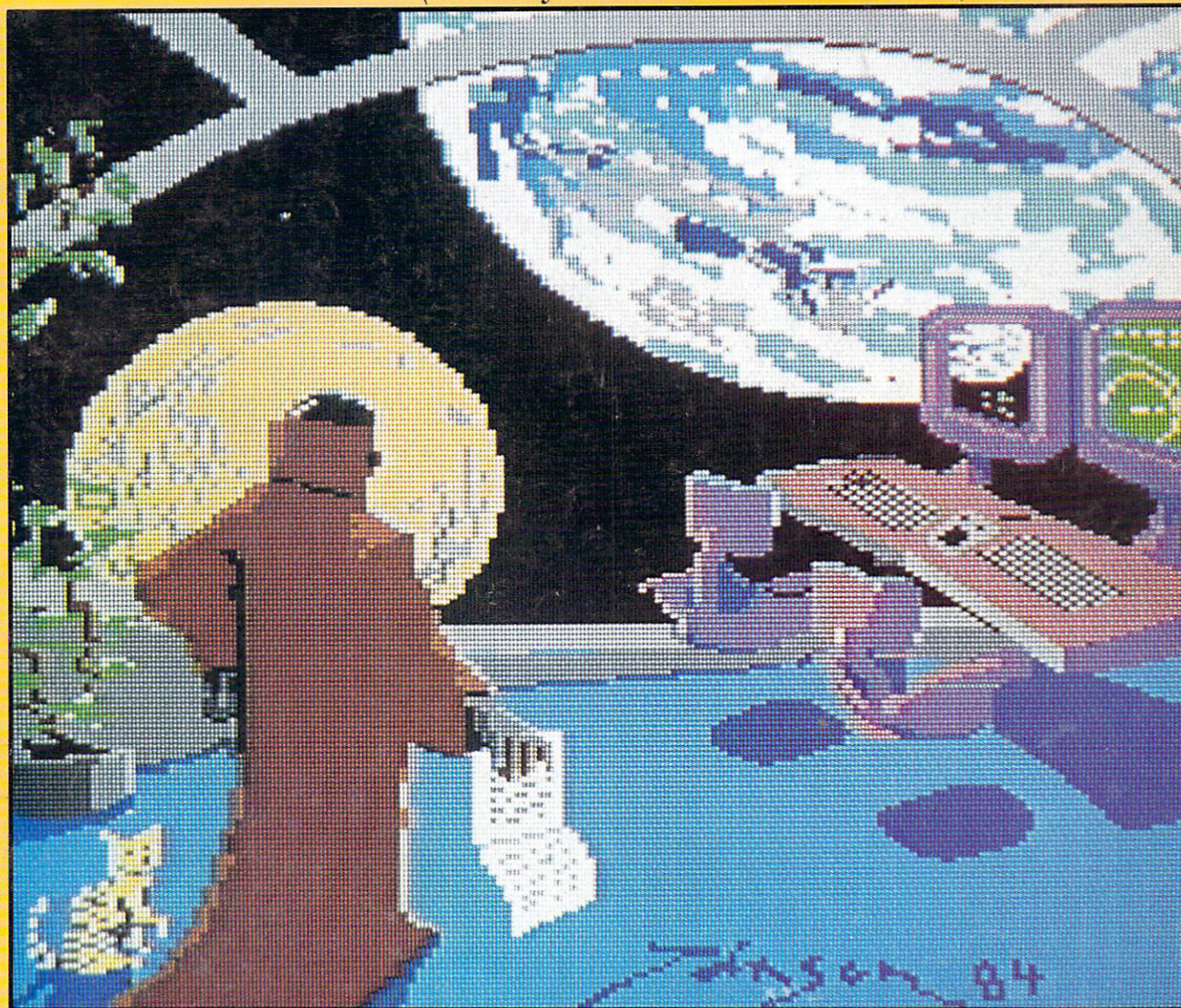
TO COMPUTER LIVING

A Monthly Publication  
For  
Commodore™ Owners

**November  
1985**

Volume 2 — Issue No. 10 (Formerly *The Northwest Users Guide*)

**\$2.50**



**"The Watcher" by Eddie Johnson**



**Flights of Fancy:**  
**Project: Space Station**  
**Skyfox-Jet Combat Simulator**





## Aquarian Software Presents . . .

### Modem Master

by Bob Richardson

#### The Fastest Commodore BBS Available!

- 300/1200 Baud Operation
- New Punter File Transfer Protocol
- Fully Menu Driven
- Over 25 Commands
- Public Message Base
- Private E-Mail Base
- E-Mail Check at Sign-On
- Sub-Directories for File Transfer
- 250 User Capacity
- Accurate Clock/Calendar
- "Old" E-Mail Deleted After One Week
- User Survey/Poll
- Printer Output
- Information Files
- Set Up in Only 10 Minutes!

**\$29.95**

**Only**



### Omiterm Terminal

by Bob Richardson

- Fully supports the new 1660 Modem 300!
- User preferences automatically saved to master disk.
- Modem controls accessible from the keyboard
- Punter protocol — upload & download — 300/1200 baud
- Ten programmable function keys
- 15 number phone directory
- 20k receive buffer
- Tone or pulse dialing
- Auto dial/re-dial
- Half/full duplex

**\$19.95**

### The Cataloger

#### The Ultimate Disk Cataloging System for the 64!

Tired of searching through hundreds of disks for a particular program? Or perhaps you would like a listing of all the word processing or educational programs in your library, or a listing by disk? **The Cataloger** can help. You can find any program *instantly*. You will know exactly which disk number the program is on, the disk name, disk ID, front or back of disk, category (games, utility, music, etc.), if the disk is protected (if so, what errors), the date the program was entered, the block count, and any comments concerning that program. In fact, you may search sort, and print a list by any of 12 different fields.

#### Features of The Cataloger V3.5A Include:

- ★ Easy loading of information. Loads directly from the disk itself.
- ★ Ability to change name of entry.
- ★ Ability to change any information *instantly* — uses relative files exclusively.
- ★ Search, Sort and Print by any of 12 fields.
- ★ Capacity for 1100 different programs (or disks) per data disk.
- ★ **FAST** — all machine language.
- ★ Menu driven — very easy to use.
- ★ Works with **ALL** printers.
- ★ Works with one or two drives.
- ★ Allows duplicate ID's.
- ★ Allows selection of items to be entered.
- ★ Unlimited category names.

**Only \$24.95**

### Thriller Series

#### John Olsen's Complete Thriller Collection!

All six thrilling adventures now together on one disk! Plus — as a bonus — **Three Hours To Live!** These are full-length machine language text adventures that will take you weeks to complete. They feature full-sentence input (not just two words!) with color and sound.

#### Includes:

- Night of the Walking Dead
- Perils of Darkest Africa
- Revenge of The Moon Goddess
- Frankenstein's Legacy
- Shipwrecked!
- Son of Ali Baba
- Plus Three Hours to Live

**Only \$24.95 For All SEVEN!**

## Aquarian Software

P.O. Box 22184  
Portland, OR 97222



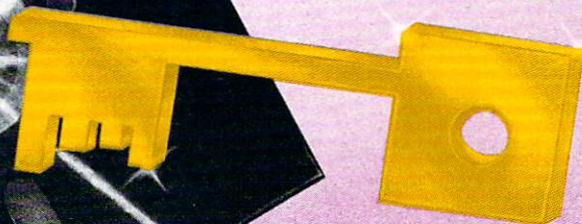
To Order, Call: (503) 654-2641  
VISA and MasterCard Accepted  
Add \$3.00 Shipping and Handling Per Order  
Dealer Inquiries Welcome!



THE #1 BACKUP COPY SYSTEM  
IS NOW BETTER THAN EVER!

# DiskMaker™

Version 3.3



with

MasterKey  
Modules

NEW!  
MODULAR  
SYSTEM

## THE AUTOMATIC DISK BACKUP SYSTEM FOR COMMODORE 64 SOFTWARE

- The LATEST breakthrough in copy technology!
- Copies NEW custom G.C.R. code protection
- Accesses & copies NEW no-sync data blocks!
- Now includes NEW long data-block logic
- Copies normal & PROTECTED data up to track 40
- 3 New IMPROVED copiers! Includes FAST Copier, VARI-SECTOR Copier, and AUTO-LOGIC Nibbler
- Actually copies a FULL disk in only 2.75 minutes!

- Includes one FREE Masterkey Module!
- Inexpensive MODULE releases keep you up-to-date
- MODULES available individually or by subscription
- Works with DiskMaker TOOLKIT and FAT-TRACK Kit
- Requires standard 1541 disk drive or SX-64
- Special version available for INDUS GT drive!
- PRODUCT SUPPORT tel. # & future module updates
- You've tried the rest, now get the BEST!

## THE FASTEST NIBBLE COPIER YOU CAN BUY!

ONLY

**\$49.95**

for copier system

To order CALL **805-687-1541 ext. 14**  
Technical line 805-682-4000 ext. 77



Order by phone 24 hrs./7 days or send cashier's check/money order payable to BASIX. Visa, MasterCard & American Express include card # and exp. date. CA residents add 6% tax. Allow 2 weeks for clearance of personal and co. checks. Add \$3.50 shipping/handling for continental U.S., \$5.50 for UPS air. COD's shipped to 48 states only, add \$4.00. AK, HI, APO, FPO, add \$7.50. CANADA add \$10.00. Other Foreign orders add \$15.00, and remit certified U.S. funds only. No credit card orders from outside North America. Dealers & Distributors invited & supported.

**DISKMAKER...THE ONLY COPY SYSTEM YOU'LL EVER NEED!**



© 1985

3463 State Street • Suite 1541G • Santa Barbara • CA 93105



# The Guide — November, 1985

<b>PROJECT: SPACE STATION</b> / RANDY CHASE	
A delightfully entertaining and educational simulation.	3
<b>RND (0) NOTES</b> / RANDY CHASE	
Consumer confusion in the Commodore world.	9
<b>TO THE EDITOR</b> / READERS	
The Readers Speak ... and the Editor Replies.	11
<b>CREATIVE SOFTWARE'S PRODUCTIVITY SERIES</b> / GRANT JOHNSON	
An affordable and powerful software series reviewed.	14
<b>I'M SORRY BUT I DON'T SPEAK HEXIDECIMAL</b> / SHELLY ROBERTS	
Shelly pays her last respects to an old and dear friend.	18
<b>FLIGHTS OF FANTASY</b> / MATTHEW STERN	
Skyfox and Jet Combat Simulator for the 64.	20
<b>ROAD SEARCH</b> / SHELLY ROBERTS	
Shelly introduces a Commodore travel companion.	22
<b>MORE COMPUTER MAGIC</b> / JOHN OLSEN	
"Flags Of Mystery" — John's latest Commodore magic trick.	28
<b>BEGINNER'S CORNER</b> / MINDY SKELTON	
Mindy continues her discussion of printer interfaces.	31
<b>REAL GAMERS DON'T READ INSTRUCTIONS</b> / ROBERT J. SODARO	
The debut of Bob's new monthly column.	36
<b>IN PURSUIT OF TRIVIA</b> / ALAN EISENBERG	
A look at the various trivia offerings available for the 64.	39
<b>GOLDEN OLDIES</b> / VALERIE J. KRAMER	
An autobiographical review of some software classics.	42
<b>PASCAL'S TRIANGLE</b> / CARMEN ARTINO	
Who in the Blazes was Blaise? Find out.	46
<b>PRODUCTIVITY SOFTWARE</b> / RANDY CHASE	
A look at SuperShipper 64 and the B.E.S.T. General Ledger.	50
<b>GRANT'S GONZO PROGRAMMER'S OPEN</b> / GRANT JOHNSON	
The contest continues, and Grant unveils some of the early entries.	54
<b>COMMODORE 128 TOKENS</b> / BILL PYTLOVANY	
A listing of Tokens used in the Commodore 128 PC.	58
<b>POTPOURRI</b> / ASSORTED STAFF MEMBERS	
Capsule reviews and comments on an assortment of products.	60
<b>LISTENING TO YOUR COMMODORE</b> / MINDY SKELTON	
Mindy reviews The Voice Messenger and Easy Speech 64.	62
<b>USER GROUP DIRECTORY</b>	
The Guide's growing list of user groups across the country.	64

*The Guide*  
3808 S.E. Licynta Ct.  
Portland, OR 97222  
(503) 654-5603

The Guide is an independent monthly publication serving Commodore computer owners. The views expressed in The Guide are those of the individual writers and do not necessarily reflect the views of The Guide, its staff, or advertisers. The acceptance of an ad does not necessarily constitute an endorsement of a product. The Guide reserves the right to determine the acceptability of any advertising submitted.

The Guide staff is accessible via PlayNET, and screen names are provided for readers who wish to send E-Mail.

Readers are also invited to join us Monday nights on PlayNET for THE GUIDE ON-LINE, a weekly electronic discussion of topics of interest to Commodore owners.

Letters to the editor are not only welcomed, but encouraged, and will be printed as space permits.

Limited use of material contained in The Guide may be allowed by user group newsletters and other publications, but only with the prior written consent of the publisher. The Guide is a copyrighted publication, and any unauthorized distribution or reproduction, in part or in its entirety, is strictly prohibited by law.

PET, CBM, VIC-20 and Commodore 64 are trademarks of Commodore Business Machines, Inc.

All material copyrighted (C) 1985 by Aquarian Communications, Inc., unless otherwise indicated.

The Guide is published monthly (and is available by subscription at the following rates: 1 year-\$18.00, 2 years-\$35.00, 3 years-\$48.00) by Aquarian Communications, Inc., 3808 S.E. Licynta Court, Portland, Oregon 97222. Application to mail at Second Class is pending at Portland, Oregon. POSTMASTER: Please send address changes to The Guide, 3808 S.E. Licynta Court, Portland, Oregon 97222.

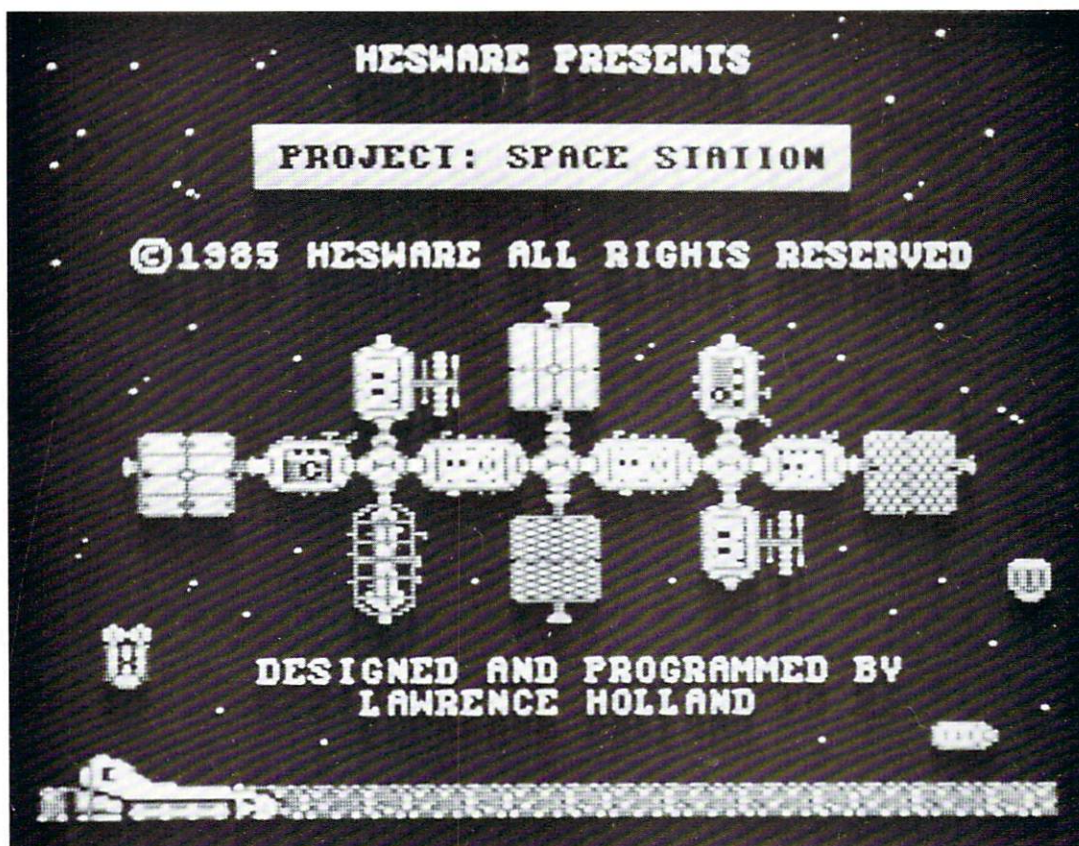


# Space Age Construction Set Entertains and Educates

by Randy Chase

Many of us can very clearly remember the day that John Glenn first orbited the Earth. And who doesn't remember the thrill that rippled around the world when Neil Armstrong took that "small step/giant leap" on the moon? We have watched the world, and the vastness of space, shrink on an almost daily basis. Space flights are now routine, something that you more often than not have to turn several pages into the newspaper to even find.

for the most part been left wanting after tasting the variety of "space age" games available for our Commodore 64. If I never again shoot an alien, or blast another spaceship, it will be all too soon! From **Alien Invaders** to **Zaxxon**, the software industry has interlaced the realms of space far too tightly with the morals and violence of the "shoot 'em up" westerns. One shudders to think what impression a visiting alien would receive if he were to shuffle through my collection of arcade games. Surely, he/she/it would have to con-



The conquest and exploration of space has been so interwoven with the development of computer technology that the two are in many ways quite synonymous. Accordingly, it's only natural that when computers got smaller and cheaper and moved into the home that they would bring *Space* along with them. Those of us who cut our space teeth on Robert Heinlein and Isaac Asimov have

clude that our planet was a prime candidate for immediate sterilization!

I've always *suspected* that I wasn't alone in my fascination with space and my obsession with my computer. Now I *know* that I am not alone. There are also those people at HesWare responsible for **Project: Space Station**. The ads warn: "THIS IS NOT A TOY!" Normally, a



AN IDEAL  
BUSINESS GIFT.

"No, I don't think so..."

Using the Sales Edge,<sup>™</sup> you anticipated that, prepared a strategy, and got the sale. The Sales Edge is a sophisticated expert system package for Commodore.<sup>®</sup> Only from Info Designs. Call 800-445-INFO. Get the Edge. \$79.95\*

**InfoDesigns<sup>®</sup>**



Registered Trademark: Commodore—Commodore Electronics Limited. Trademarks: The Sales Edge—Human Edge Software Corporation—developed exclusively for Info Designs on the Commodore 64/128. \*U.S. Currency.



A  
USEFUL  
GIFT FOR EVERYONE.

"So, you want a raise?"

You'd know what to say next with the Negotiation Edge.<sup>™</sup> It's one of the most sophisticated expert system packages for Commodore.<sup>®</sup> Only from Info Designs. Call 800-445-INFO. Get the Edge. \$79.95\*

**InfoDesigns<sup>®</sup>**



Registered Trademark: Commodore—Commodore Electronics Limited. Trademarks: The Negotiation Edge—Human Edge Software Corporation—developed exclusively for Info Designs on the Commodore 64/128. \*U.S. Currency.



disclaimer like that implies that it is either something so hard to use that you'll never be able to figure it out, or too boring to want to use anyway. In this case, however, it is an apt description of a piece of software that transcends labels and categories. **Space Station** marks HesWare's re-entry to the market after an absence, and they've returned with a *classic* in **Space Station**.

They refer to it as both "the ultimate construction set" and a "science simulation in space". It is truly both of those, and much, much more. I won't call it a "game", even though I've spent hours "playing" it. And I won't call it "educational" because it's just too much fun to be good for you.

Imagine that you've been placed in charge of NASA, with your primary mission being to successfully establish a space station. You have at your disposal a budget of \$10,000,000,000 (ten billion); two space shuttles, The Challenger and The Discovery; and a pool of personnel from which to man your shuttles and eventually your space station. But first you have to plan and carry out the various shuttle trips needed to transport and assemble the various modules needed for the personal design you've chosen to meet the needs of your particular mission.

The amount of detail that went into **Space Station** is overwhelming. This isn't an action arcade game, nor is it a text-oriented strategy affair. Instead, it is an experience in excellent graphics and very credible realism. HesWare has found that magical combination of entertainment and education, that teaches and enlightens while it provides countless hours of fun.

While **Space Station** is totally menu driven, with abundant sources of help available throughout, the manual is both thorough and quite necessary. The help screens and background information provided within the program are a supplement to the information in the manual, not a replacement for it. While either might seem to offer you the information you need, upon closer scrutiny, you'll realize that you'll have to draw pieces from both sources to get all the data you'll need to make decisions. For instance, even though *all* of the personnel available are described in the manual, you will want to read the "résumés" held within the program for additional insight into personalities when choosing teams for team projects. Also, when reading the descriptions of the various



<b>FUNDS AVAILABLE</b>		\$0M					
<b>ITEMS</b>	<b>SPENT</b>	<b>RESERVE</b>	<b>TOTAL</b>				
<b>Planning</b>							
<b>Equipment</b>	\$370M	\$830M	\$1,200M				
<b>Modules</b>	\$773M	\$727M	\$1,500M				
<b>Operations</b>	\$5,175M	\$25M	\$5,200M				
<b>R and D</b>	\$652M	\$648M	\$1,300M				
<b>EXIT</b>	\$0M	\$800M	\$800M				
		<b>TRANSFER AMOUNT</b>		\$100 M			
<b>STATUS BOARD</b>		-----		<b>DATE: 9-13-85</b>			

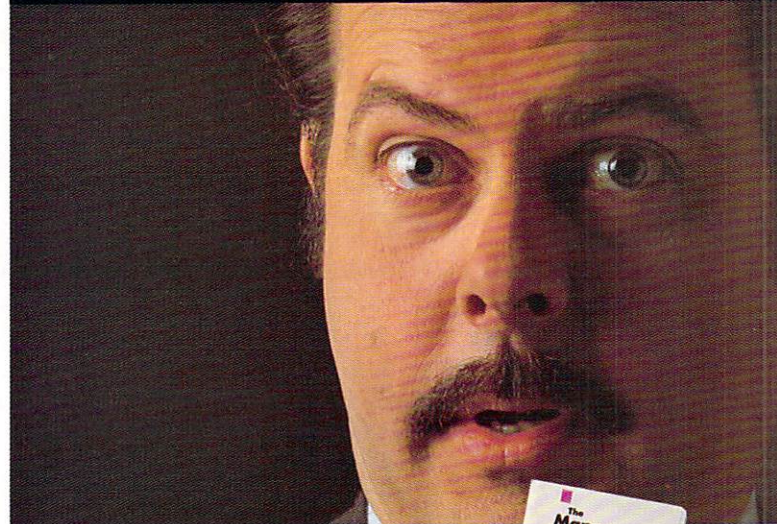
Research and Development projects in the manual, you will notice that there are no references to the number of personnel required for the project, nor are there references to the amount of equipment and supplies that will be needed. Both of these pieces of information will be found in the project descriptions contained in the R&D option of the program.

The first challenge facing the prospective administrator of **Project: Space Station** is the completion of the project plan. While plans can be changed and modified at any time (as long as there are sufficient dollars left in the planning budget), alterations are both time-consuming and costly; so it is quite imperative that you plan carefully lest you find yourself later wasting precious dollars to revise a hastily prepared plan.

As with all projects, the first step is the budget. While allocating initial budgets for Planning, Equipment, Modules, Operations, and Research & Development, prompts will tell you when you haven't provided adequate funding for various aspects of the mission. Next a personnel pool must be selected from which to draw flight crews for the shuttles, and eventually to provide the crew for the space station itself. While selecting a crew, my first impulse was to select both a large number and a wide variety of people. Every person selected, however, carries an annual salary; and as the mission continues it becomes more imperative that you avoid any excessive costs, such a person on the payroll that may never see flight time.

Even here, in the earliest stages of planning, the interwoven details in **Space Station** are almost uncanny. One of the last steps of your mission is actually beginning the scientific projects on board the space station. However, it's crucial

**“What about my attitude?”**



You knew he'd say that. And you know how to respond with the Management Edge.™ It's one of the most sophisticated expert system packages for Commodore®. Only from Info Designs. Call **800-445-INFO**. Get the Edge. **\$79.95\***

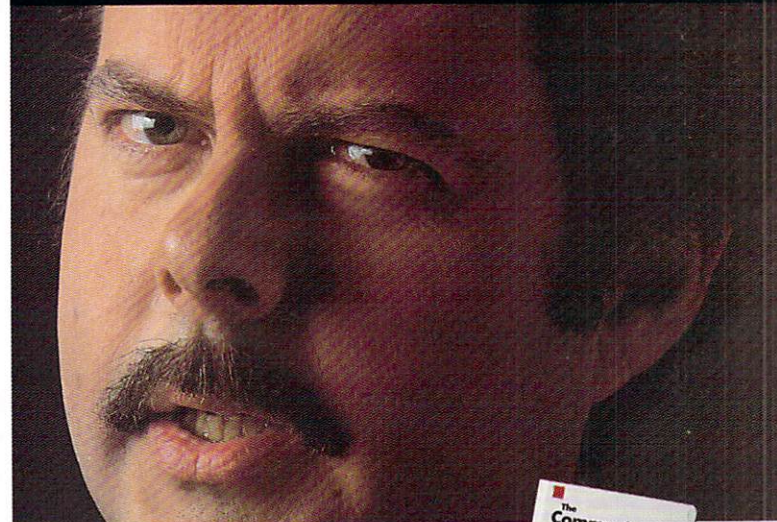
**InfoDesigns®**



Registered Trademark: Commodore—Commodore Electronics Limited. Trademarks: The Management Edge—Human Edge Software Corporation—developed exclusively for Info Designs on the Commodore 64/128. \*U.S. Currency.



**“Okay...so tell me again.”**

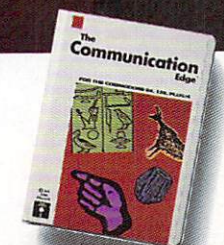


You have. He's not listening or you're not getting through. Try the Communication Edge.™ It's a sophisticated expert system package for the Commodore®. Only from Info Designs. Call **800-445-INFO**. Get the EDGE. **\$79.95\***

**InfoDesigns®**



Registered Trademark: Commodore—Commodore Electronics Limited. Trademarks: The Communication Edge—Human Edge Software Corporation—developed exclusively for Info Designs on the Commodore 64/128. \*U.S. Currency.



**THIS  
YEAR'S  
GREAT GIFT.**



## The Guide Staff

### Publisher & Managing Editor

Randy Chase (Randy C)\*

### Associate Editors

Bill Wallan (Bill W)

Grant Johnson (Grant J)

### Contributing Editor

Mindy Skelton (Mindy S)

### Photographs

Grant Johnson (Grant J)

### Cartoons

André Liu

### Staff Writers

Carmen Artino (Carmen A)

Lyn Chase (Lyn C)

Peggy Herrington (Peg H)

Bud Izzit

Eddie Johnson

Carl Knox (Carl K)

Valerie Jean Kramer (Valerie K)

John R. Olsen, Jr.

Bob Richardson (Bob R1)

Shelly Roberts (Shelly R1)

Robert J. Sodaro

Matthew Stern

Colin F. Thompson (Colin T)

### Staff Artists

Eddie Johnson

Bill Wallan (Bill W)

### Contributors

Alan Eisenberg

James Erickson (James E)

Bill Pytlovany (Bill P1)

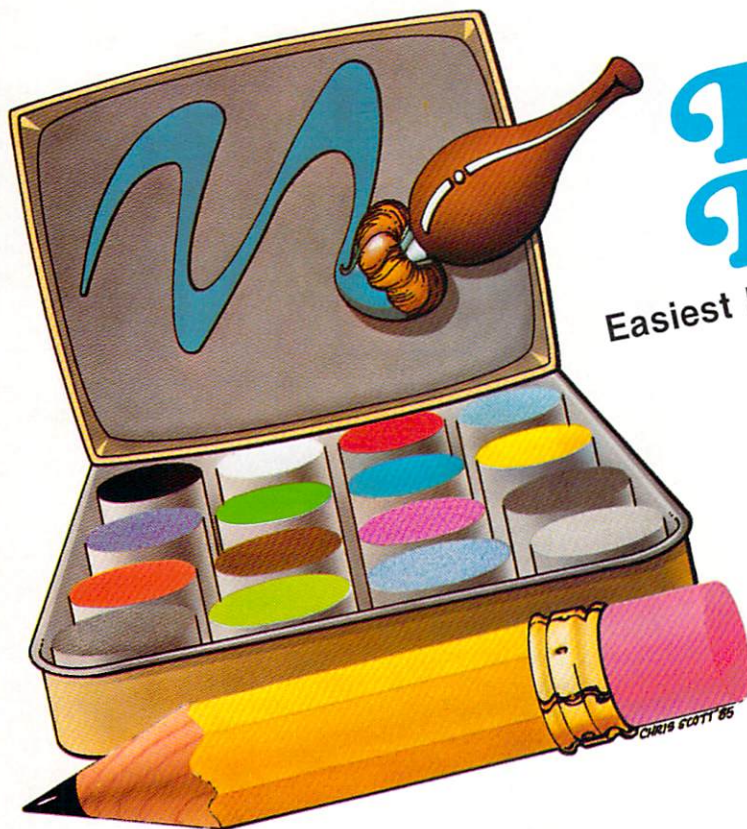
Robert Scott (Bob S)

(\* PlayNET Screen Name)

The cover art, "The Watcher", was created on a **Koala Pad** by Eddie Johnson, and is from a soon-to-be-released game called **Sign of the Wolf** from Berserker Works, LTD.

*The Guide* features high quality original artwork on the cover each month. All artists are encouraged to submit their computer artwork for consideration. The only restriction is that the art must have been created using a Commodore computer. This could be your chance to move that masterpiece from the screen on your monitor to the newsstands of America! And make a few dollars in the process.

Please submit all artwork on disk, with a cover letter describing the graphics package used to create it. It will be photographed from the screen, so screen dump capability is *not* a requirement.



**Dot 'n Draw™**  
Easiest Drawing & Coloring Book Available

Special  
Introductory  
Offer!!

**\$34.95**

- A delightful program for all ages; easy for kids and a challenge for adults.
- Draw your own pictures and save them on a disk.
- Color your own creations or any of the pre-drawn pictures included in this package.
- Coloring box with sixteen colors.
- Play Follow The Dots with your own pictures or those already on the disk.
- Play two levels of Follow The Dots: Easy, with a flashing dot leading the way, or more difficult, finding your own path through the dots.
- Create a picture, transform it to dots, then challenge your family and friends to recreate your art.

ILLUSTRATED IMAGES

P.O. Box 25722, Portland, Oregon 97225

All Rights Reserved World Wide

Commodore 64 Version by Chris Scott  
Apple Version & Concept by Don Fudge

C64 and C128 are trademarks of Commodore Business Machines  
DOT 'n DRAW is a trademark of Illustrated Images



that these R&D projects (which will all too soon be depended upon to provide continued operating funds for the Station) be researched carefully in the initial phase of planning. The R&D projects to be pursued will dictate not only the personnel needed, but also the modules with which you will want to build the station, and the equipment needed to supply it. And yes, you can just build a space station, staff it, and then decide what you'll do next. With **Space Station**, you operate by whim, or calculated master plan, depending on your mood at the time. I found out quickly, though, that the time spent trying to figure out what I should do next consumed incredible amounts of time and money, and always resulted in a bankrupt space program, and a high number of casualties (usually including several crew members stuck aboard a space station without sufficient funding to rescue them).

With 32 possible crew members (divided into 15 different job specialties) from which to draw, 40 different R & D projects to undertake, and endless combinations of the eight station modules to use in the design and construction of *your* station, the possibilities offered are astronomical. Combine that with the accidents, mistakes, acts of fate, and other operational factors, and it quickly becomes apparent that this program has no end, nor any solution, nor any "high" score. Instead, it offers a challenge to learn and to understand, and to explore the many worlds of "what if?"

After finishing your plans, (and, of course, having them approved by some nameless and faceless bureaucrat — this is, after all, the government we are dealing with!) the next step is to transport the various modules into orbit, and assemble your station. You have two shuttles at your disposal, the Challenger and the Discovery. Timing and planning again are the key to success. The faster your station is in inoperation and staffed the better your chances will be of seeing revenues generated before your operating budget has expired.

As you've probably already guessed, this isn't something you'll complete in one sitting. Except, of course, if you count starting a mission, killing your crew, and stranding both of your shuttles in space. Believe me, that *can* be done in a surprisingly short time. Success, however, will require careful plans, a thorough understanding of the nuances of **Space Station**, much time, and a little luck. How much time? I don't know. Ask



me in a couple of months. I've still got a lot to learn. Fortunately, **Space Station** has a very practical and easy to use Disk Manager option which allows you to save and continue missions. (You'll learn quickly that saving your mission every couple of weeks — game time — will save you much frustration and backtracking when things go astray!)

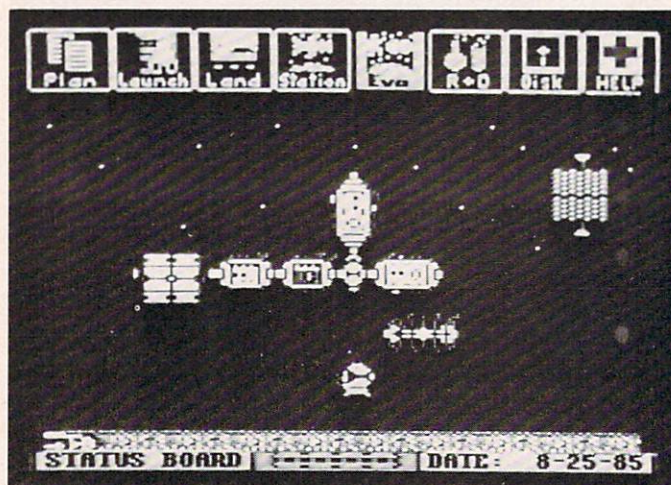
Lest I make it sound too difficult, I should explain how simple and friendly **Space Station** is. Everything you can do is menu selected. It is almost impossible to get totally lost. With help files and background information available throughout the program and cross-referenced and covered twice in the manual, it's only a matter of a little time and a bit of stumbling about in the program and you'll be juggling shuttles and cursing cost over-runs in no time at all!

The graphics are at best exquisite, and at worst good. And **Space Station** combines just enough joy stick action to keep it from being simply a strategy package. Flying a POD (Orbital Maneuvering Pod) on an EVA (Extra Vehicular Activity) to construct your space station is the graphic high of the game. (And see how fast you can learn to talk "astronaut-talk"? ) Both launch and take-off require joy stick guidance of the shuttle, and on landing the rate of descent and angle of approach must be controlled in hopes of avoiding damage to the shuttle, which could postpone the next flight until repairs are made.

While I'll not pretend to have mastered **Space Station**, I have learned a few costly lessons that I'll pass along to help you with your initial flights. When selecting crews, be very aware of the fact that several key specialists have no backup crew member. For instance, there is only one Agronomist available, and should something

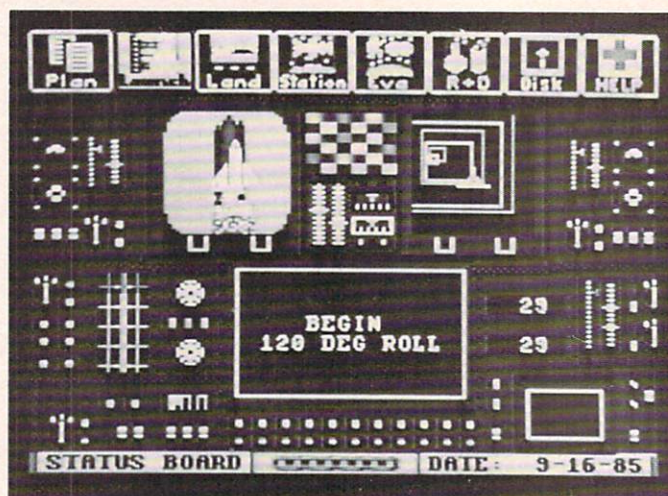


happen to him, any R & D project that requires his expertise will have to be scrapped. Treat these people kindly. Don't risk them on EVA's where they could be stranded, and don't forget and leave them in the shuttle 31 days (the shuttle can support life for only 30 days, and then the occupants all die). Also, don't kill your shuttle pilots. You have only three of them, and if they all die, you're out of luck and grounded. Or stuck in orbit, depending on your perspective at the time.



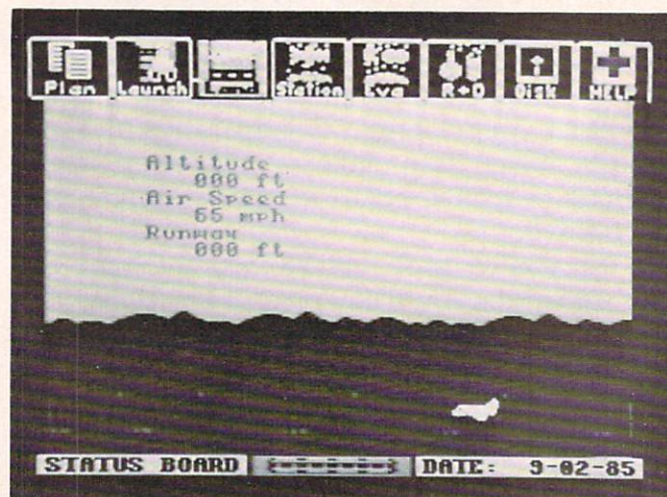
Another very costly mistake I made repeatedly was getting confused and sitting, lost, in the manual, looking for help, while time passed all too quickly. It's easy to find out that while you were looking up the landing instructions your shuttle crew died. It's also important to keep an eye on your operating funds at all times. If you run out of money with a shuttle in orbit, you will not be able to afford to bring it back to Earth! After a few embarrassing mistakes like that I found myself wishing that they'd added an extra degree of realism: the ability to print more money when you run out.

**Space Station** is probably one of the most challenging simulations I've encountered. It is without a doubt very effective in educating the user about what is involved in the design, construction and operation of a space station. I wouldn't hesitate to recommend **Space Station** for both its playability and its educational value. For the kids, both young and old, who are tired of zooming through space destroying anything that moves or flashes, **Space Station** is a refreshing change of pace. It's about time we space cadets were given a challenging mission to undertake.



Now, you'll have to excuse me. It seems that the Discovery is stuck in orbit with a dead crew and I have to get my spare pilot shuttled up there in the Challenger ... A status report shows that the station is over-heating and an additional radiator is needed immediately ... My budget is running out and I haven't seen a cash pay-off yet from either of my R & D projects currently underway ... And now there seems to be a personality conflict between the crew assigned to the space sickness research team ...

Like the lady said, "If it isn't one thing, it's another ..."





# RND (0) Notes:

## Too Many Toys In The Store?

### (Or Where Do I Go From Here?)

by Randy Chase

With the Christmas season rapidly approaching, and both the Amiga and the 128 PC *finally* on store shelves the once simple Commodore world has suddenly taken a confusing turn. It used to be quite simple. Either you already had a 64, or you were planning to purchase one soon. The biggest question people used to ask me was what kind of printer they should add to their system. Now, though, it seems like everyone is trying to decide what computer they should be purchasing.



Since I seem to get asked at least once a day which computer I would recommend someone purchase this Christmas, I guess this month's topic has been chosen for me.

An old friend stopped by the other day, and, during our visit, asked me if he should get a 128. Now, my friend is a casual computerist, at best. His computer is something that he enjoys playing with, but it isn't something he is using for any earth-shattering purpose. I explained that I really didn't think he'd be gaining anything by moving up at this time to a 128. But, he said he'd been reading all these rave reviews about the new machine, and wasn't he going to be missing out by sticking with his *out-dated* 64?

The rule of thumb I've been using when answering people's questions about upgrading from their 64 is to ask them what it is that they want or need to do that their 64 isn't capable of doing for them. If the answer is "nothing", then there really is no need to move on to a bigger machine just yet.

If you are using your 64 for extensive data bases, or if you do a lot of word processing and really feel that you need the 80-column display, then the 128 is going to fill a need for you. But if

you're just curious about it, or just afraid that you're getting left behind, I would advise you to save your money instead and continue enjoying your 64.

Then, the logical question is, who would I say *should* buy the 128? If you are currently using your Commodore 64 for business applications, you will without doubt want to take a serious look at the expanded memory and the CP/M capabilities of the 128. With the wealth of CP/M software available, the addition of a numeric key pad, and 80-column display, the 128 could prove to be a very viable small business machine. And when Commodore finally releases the 512K RAM Disk expansion unit, the business application possibilities will be even more significant.

If you are a programmer, you've probably already decided that moving up to BASIC 7.0 is not an option, but a necessity. So many of the nightmares of the 64 BASIC have been eliminated and/or improved upon, that it will be a welcome change for those who learned to program on a 64.

In all reality, I think the biggest single reason many people will upgrade to the 128 from their 64's is the 1541 disk drive. The prospect of a faster, more reliable drive, people are telling me, seems to be the most popular reason people are making the switch. Even knowing that in the 64 mode they are still restricted to 1541 speed, they can't resist escaping from the frustrating sluggishness of the 1541.

Casual users are probably using their computers for entertainment, or for their own educational pursuits. In reality, they probably already own a computer capable of doing far more than they need or want in their Commodore 64. If you can cite something you really have to do (or really *want* to do) that you can't accomplish on your 64, then it's time to look at the 128. But if you've been content with your 64, and don't have a reason to spend the money, please don't just because people like me write nice things about the



newest addition to the world of Commodore hardware.

And my friend that asked if he should think about getting a 128? Well, I told him he'd be foolish to even think about getting a bigger computer. First, he just doesn't need it. And second, he would get far more practical use from his 64 if he, instead, used the money he was thinking about spending to add a printer to his 64. I guess all I'm saying is to use your limited computer budget wisely, always trying to spend in a way that will be filling a need or weakness in your system. There will always be something available that is bigger and faster and newer, but will it necessarily be of any real and practical value to you?

All of which, sort of, brings us around to the Commodore Amiga. Where in the greater scheme of things does the Amiga fit? That is a question you'll find being discussed everywhere you turn. Many trade publications are asking why businesses would want the graphic and sound capabilities of the Amiga. These writers are all writing off the possibility of acceptance in the

"real" business world, and are dismissing the Amiga as an over-priced and over-powered home computer. I think only time and the sophistication of the software to be released for the Amiga will settle that debate. (One comment that warrants interjection in this discussion of the Amiga's acceptance is an inside report I received last week that a very large electronics firm was tabling a multi-million dollar development project after seeing the Amiga. It seems that their dedicated Computer Aided Design system they have in the works can't hold its own in comparison to the *little* Amiga.)

How, then, *does* the Amiga fit into the realm of "home computers"? I've had more than one industry "expert" point out that they felt the Amiga was too expensive for the average Commodore owner. They obviously weren't among those who paid \$1,000 for a Commodore 64 and a 1541 disk drive a few years ago!

I have no doubt that in the first six months, most Amiga's sold will be used in home environments. It's going to be at least that long before there is a software base available to

## Unidyne Computer Center

536 N. Independence Blvd. — Virginia Beach, VA 23462

(804) 499-7166 / Peninsula (804) 877-0231

**Free Bulletin Board Service.....(804) 499-4327**

8 pm to 8 am — Call For Store Prices, Weekly Specials,  
And To Place Orders — We Do Shipping

### Software Specials:

PaperClip.....\$79.95    The Consultant.....\$79.95

**Buy BOTH For Only \$154.95**

Superbase 64.....\$59.95

**Buy Two Games For 25% Off, Get  
A Third Game At 50% Off**  
(Specially Marked Boxes)

**C-128 PC** (Reg. \$329.95) ..... **\$296.00**      With This Ad

Clip and Mail This Ad With Your Order And Receive the Commodore C-128 PC

For Only \$296.00 — **Now In Stock!**



**commodore**  
Authorized Sales, Service & Warranty  
Repair Centers

**Amigas Available**  
Call For Details



seriously support the machine in the commercial marketplace on a large scale. Which brings us back around to the topic at hand. How do I reply to the caller who explains that he was planning on upgrading to a 128, but now is wondering if he should instead save his money a little longer (or borrow a little more) and move on up to an Amiga.

While I've made no secret of my enthusiasm for the Amiga, I do caution those who are eager to spend their money to consider a few things before making their decision. I have several friends and associates who have already made the plunge, and are now spending much of their time sitting in front of their new Amigas. I should point out, however, that they are literally sitting in front of their new computers, watching the monitor go through the demo programs that come with the machine, because with the software available, that is *all* they are able to do! As I sit and write this, there are literally NO *real* programs you can buy, beg or borrow that will run on the Amiga. By the time you read this, that will have changed. Commodore's word processor for the Amiga is due to arrive in the stores in the next few days. And we've all heard about the wondrous new software due to be shipped sometime "just around the corner".

If you're a programmer who just can't wait to get started learning the in's and out's of the Amiga, go get one today. (If you haven't already!) But for most people who still feel the need for software to make their computer perform for them, I'd advise watching the software availability, which will probably be changing on an almost-weekly basis. When you can see that the software you would need to make the Amiga a practical acquisition is available, *then* make the move. I expect that it will take a full six months before we see a real selection of software for the Amiga. The key, though, is to watch for the right combination of programs to become available to transform the Amiga from an expensive toy to a practical and economical business tool.

As I sat at a friend's home the other night, watching the kaleidoscope demo that came with his Amiga, I was amused at the sense of déjà vu. I seem to recall a few years ago when that same friend and I would sit around our 64's watching silly little graphics demos and dreaming about the day when we could find some *real* software to run. Funny, isn't it, the way life sometimes seems to travel in circles?

## Software Review Draws Response

Mr. Randy Chase, Editor / Publisher  
*The Guide Monthly*  
3808 S.E. Licynta Ct.  
Portland, OR 97222

Dear Mr. Chase:

We were quite disappointed to see the poor and unfair review of our newest product, **Beach-Head II**, in the August issue. In truth, we did not feel it was a review at all, but rather an extremely negative and inept attempt at comparing apples to oranges in effect. This article was authored by Matthew Stern, listed on your masthead as a staff writer.

Clearly, Epyx has an excellent product with their sequel, **Summer Games II**, and we wish Epyx every success with it. Computer game enthusiasts with a penchant for strategy/skill games of a decathlon nature will love it; others will like it to varying degrees; and, the reality or it all is that *some* people won't like it at all. This phenomenon of varied acceptance, apathy or resistance to new products is not unique; it happens all the time.

The fact of the matter is that **Beach-Head II** and **Summer Games II** are both sequels to earlier successful titles. That is the *only* common ground between these two products. Mr. Stern has demonstrated extremely poor judgement and a total lack of understanding in seeking to draw correlations between these two products solely on the grounds that they are both sequels.

In all of our ads, press releases and promotional literature we use descriptors such as "strategy arcade game" and "action/strategy game" to accurately delineate the genre of **Beach-Head II**. We feel it is a product with enough unique features, varied play-action and multiple scenarios to satisfy the most demanding aficionado of games of this genre; the success **Beach-Head II** has been enjoying since its release proves that this is indeed the case. If any comparisons were to be made, the competitive products should also be of the same genre; **Summer Games II** is not.

By the numerous inaccuracies throughout Mr. Stern's article, it is quite evident that he did



not spend any appreciable amount of time playing **Beach-Head II** — or reading the accompanying documentation, for that matter! It is also quite obvious that Mr. Stern is not “into” strategy/action arcade-type games. We are puzzled as to why he reviewed **Beach-Head II** in the first place, since this type of game is not his “cup of tea”.

We would continue on about the myriad of discrepancies in Mr. Stern’s article, but that would do little to correct the damage already done. We would, however, like to state our opinion here and now, just as Mr. Stern did:

Mr. Stern is clearly *unqualified and incompetent* to review a product of this genre. His comparisons of **Beach-Head II** to Epyx and Infocom products further exhibits his lack of experience and familiarity with recreational software products.

In closing, we would like to state that, as of this writing, **Beach-Head II** is enjoying sensational reviews and critical acclaim in other publications — in fact, it has been selected as one of the Top 25 Games of 1985 by *Ahoy!* Magazine. **Beach-Head II**’s solid position on **Billboard** Magazine’s Top Ten Software Chart for many weeks also attests to its excellence and popularity. We can’t help but wonder what these other reviewers saw in **Beach-Head II** that Mr. Stern so blindly missed.

Sincerely,  
Access Software, Inc.  
/s/ Bruce E. Carver, President

## In Reply . . .

Didn’t we just go through all of this last month? Oh, well, here we go again . . .

I would first like to defend the concept of the article, which was to review two products which share several similarities: both were sequels to very popular programs, both were joystick-driven arcade/action games, both featured *state-of-the-art* graphics, and both are competing side by side on retail shelves. Granted, the two games are quite different in subject matter and actual play. But then, football and basketball are quite different, and *both* are considered “sports”. You suggest that we are comparing apples to oranges. I counter that they are creatures of a similar nature, and are both products competing for the same consumer dollar. Would you really prefer

that I, instead, compared **Beach Head II** to **PaperClip** or **VizaStar**?

Let’s face it, both products fall into the entertainment category, and both are designed to amuse and entertain the consumer for a while, and then he/she will become bored and shop for a new game. And, just like the record industry, or the movie industry, both Epyx and Access will be there with a new release that is more exciting and offers greater enticement and new entertainment appeal. Both will continue to make a profit from their efforts if they offer a fair entertainment value for that consumer dollar.

I don’t question your statements about the success you are having with your product. I am very aware of the sales figures being enjoyed by **BHII**. I commend you on your success, and wish you continued good fortune in the future. I, however, *do* take offense at your inference that if it sells it’s gotta be good. Come on, Bruce — this is the *real* world. I won’t for a minute accept the premise that retail success (in *any* industry) is necessarily an indication of the quality of a product.

A few years ago, a certain toothpaste [unnamed here] entered the marketplace as an unknown product, and within a year was the best-selling toothpaste in the country, in spite of the fact that every dental study published listed it as the *least* effective product on the market! Sales figures have never been considered the basis for reviewing and evaluating the quality of a product of any kind!

We aren’t in the business of doing a “box office” listing measuring the dollars generated by various products. That is between you and your accountant; it is not a factor in the evaluation of the relative merits of pieces of software.

In talking about **Summer Games**, you allude to the fact that different people will like different things. Doesn’t this logically lead to the same conclusion about your own product?

I also feel that I must address your comments about Matthew’s qualifications as a writer. I would be quite curious to find out just what you would consider to be the prerequisites for reviewing entertainment software. In my mind, the primary qualifications would be that a writer is familiar with the various products on the market, and is articulate enough to communicate opinions and perspectives to the reader.

With reviews being, by nature, a very subjective analysis of products (especially those which are designed primarily to entertain the buyer), I



do not see just what "qualifications" Matthew fails to possess. I will, for a moment, forget the formalities and add that I consider it to be very unprofessional, as well as being a "cheap shot", to toss about such adjectives as "unqualified" and "incompetent" simply because a writer didn't happen to get excited about your product — even if it is a commercial success!

Were it not for that approach in your letter, I would probably have written a one or two paragraph reply defending our policy of printing honest (and yes, sometimes, critical) product reviews. The manner in which you respond, however, leaves me little choice in the way I respond and prompts me to offer a few comments of my own.

Not knowing just what you consider to be the "desired" qualifications for a software reviewer, I'm going to hazard adding some of my own impressions of **Beach Head II**. I don't know that you'd consider me any more qualified than Matthew, but if you'd like a copy of my resume for your approval, I will be glad to forward it to you.

I feel that Access Software has been con-

sistently at the forefront of this young industry in setting standards for utilizing the graphics capabilities of the Commodore 64. However, I personally find **Beach Head II** to be yet another product that is lacking in long term playability and logic in the overall game design.

The other issue that should perhaps be addressed here is the basic nature of the game itself. As a parent, one thing that troubles me is the amount of mindless violence in so many of the "best selling" games (and I'm not pointing my finger at just Access). I don't expect everyone to agree with me, but I just have to think that there *MUST* be a better way to entertain children with a computer, short of resorting to "marathon massacre sessions". Perhaps I'm an idealist, but it just seems that such an instrument of magic and fascination (especially for the young — in both years and mind) can be put to far better use.

In closing, I'll pass along the comments my 12-year-old brother made to me after reading the review of **Beach Head II**. He asked, "How could you say such terrible things about such a great game?" Perhaps, Bruce, next time I'll ask *him* to write the review.

**Canadian Best-Sellers NOW Available in the U.S.**

## **The Gold Disk Series**

Quality Software for Your 64 at an Affordable Price!

**Only \$14.95 Per Disk\***

\* Plus Shipping and Handling

### **Each Disk Contains:**

The Feature Program

Tutorials on Programming

Two High-Quality Games

And MUCH MORE !!

**Volume 10 Now Available — Featuring an Advanced Sound Synthesizer**  
**Volumes 1 through 9 Are Also Available**

Dealers Welcomed! Call (503) 654-2641 For Details.

**Aquarian Software**

P.O. Box 22184  
 Portland, OR 97222



To Order, Call: (503) 654-2641

**VISA and MasterCard Accepted**

Add \$3.00 Shipping and Handling Per Order  
 Dealer Inquiries Welcomed!



# Three-Piece Series Combines Price, Ease of Use, Power

by Grant Johnson

The holy trinity of programs for the "productive" computer owner, are: the word processor, the data base and the spread sheet. The word processor manipulates text into anything from memos to books while making revisions and corrections a pleasure, rather than a curse.

The data base enables the computer to store, retrieve and reorganize information in efficient and sometimes surprisingly powerful ways.

Spread sheets allow the user to display, interrelate and reshape large groups of numeric information.

Whatever advantages (and they *are* considerable) each of these tools brings to computing, the combination of their abilities is greater than their sum.

Being an early owner of the Commodore 64, I was forced to pick up my "trinity" piece-meal from different companies as they became available. I worked my way through quite a few programs before I managed to get three that could be made to work together. I can still remember the rush I felt when it all came together. I was Commander-in-Chief of the Universe for at least a week.

I went looking for tasks on which I might try my new muscle. I live on an island where the Columbia and the Willamette rivers join. At that time the island was just forming a volunteer fire department. I created a data base of all residents on the island (about 300) including names, addresses, phone numbers and other information (such as map coordinates).

People often give poor directions in emergencies, so the data base was used to print listings that made it possible for us to locate them with as little data as a phone number.

The word processor was used to turn out letter-perfect correspondence and, in combination with the data base, was used to turn out individually-addressed mass mailings. Government watch dogs (the folks that keep your tax money from going to Reno, unless you live there) were kept happy with budgets generated in the spread sheet program.

With this computational triad, I found that I could generate and maintain a wide variety of reports, equipment lists, training records and what-have-you with such ease that I was soon regarded as the local wizard of bytes.

Truth is, all this came at a price, and not just for the software. Each program had to be mastered, and some means of transporting information from one program to the other had to be devised.

Things have improved markedly since then. Nowadays there are programs for the 64 that were designed from the onset to work together. The set of Creative Software products reviewed here is one such set.

## The Products

The **Creative Writer**, **Filer** and **Calc** programs are each separate products that, while functional individually, can be used together. Each of the programs can be purchased alone, and each program comes in an attractive plastic case containing a disk, manual and clever liner that unfolds into a command summary card. The cases are apparently of the "child-proof" variety, as I had trouble getting them open. (A quick touch of a felt tip pen on the edge to be pulled solved the problem.)

The manuals are readable and adequate, but you are expected to know the basics about keyboard operation, how to insert a disk and so on.

The program disks are copy-protected and failed to load on my MSD drive. When it comes to printers, Creative Software guarantees these to work with a Commodore printer — no provisions are made for other brands within the programs, but a workable setting can be found on most interfaces. The programs list for \$49.95 each.

## Creative Writer

**Creative Writer** is the word processing component of the three. In order to illustrate the characters of all three programs, I will explore **Writer** in some depth. When loaded, it presents a main menu with ten options:



- |                      |                 |
|----------------------|-----------------|
| 0 — New Document     | 5 — Write       |
| 1 — Load Document    | 6 — Page Format |
| 2 — Save Document    | 7 — Preview     |
| 3 — Destroy Document | 8 — Print       |
| 4 — Disk Catalog     | 9 — Utilities   |

### 0-New Document thru 4-Disk Catalog

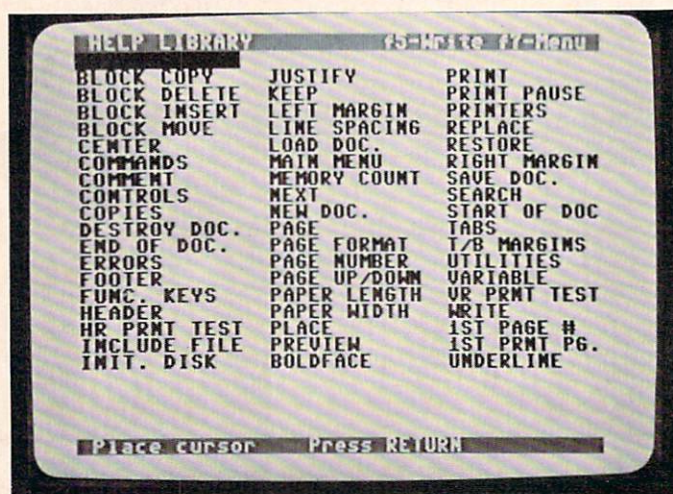
"New Document" clears the memory buffer, and "Load", "Save" and "Destroy (scratch) Document" do exactly what they say. Disk Catalog shows you what's on the current disk without disturbing memory. Documents can be loaded or destroyed from the resultant display by pointing a cursor at them and typing "L" or "D".

### 5-Write

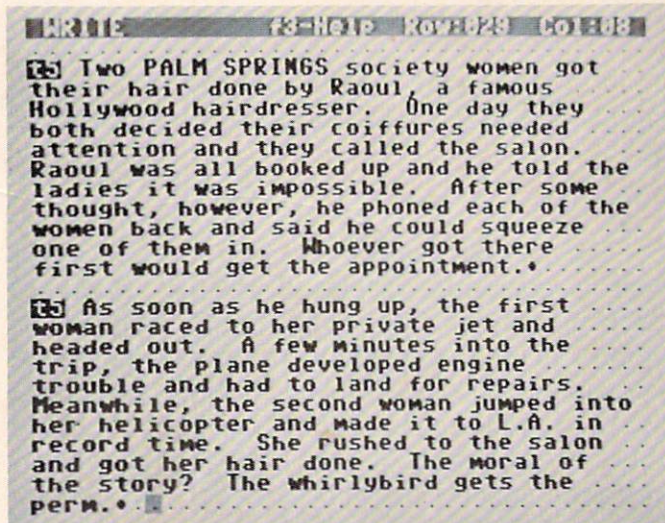
In the Write mode, most of your time will be spent entering and editing text. This mode has two features worth mentioning. First, there are the delightful tick marks (see photo). They are non-printing, and can even be removed from the screen — but, I find them very helpful for checking the alignment of paragraph indentations and such.

Secondly, all text entered in this mode is displayed with "end of line formatting" — a word is *never* divided at the edge of the screen. It simply pops down to the next line along with the cursor. There are times when I wish this could be defeated, but it makes for easy reading.

Other features enable you to delete, move and copy blocks of text. (If you find yourself saying "Oops" after a delete, you can even restore the text.) There is an "Insert" mode, and a "Search & Replace" mode, as well.



Formatting commands to control printing are embedded in the text. Such commands are set apart from the text by means of reverse video, and include: margins, line spacing, justification, centering, headers and footers, tabs, forced pag-



ing and even a "keep" to delay paging the last few lines of a paragraph to the top of the next page.

## PIANO ROLLS PLAYED BY COMPUTER ARE YOU KIDDING?!!!

NOW YOU CAN TURN YOUR HOME COMPUTER INTO AN ENTERTAINMENT CENTER AND MUSIC EDUCATION MACHINE. JUST ADD OUR MIDI CABLE AND ANY MIDI INSTRUMENT.\*

The appearance of the MIDI on home organs and synthesizers opens up a whole new future for music. QRS player piano rolls from 1900 to present day were performed by great artists from Scott Joplin, Fats Waller, and George Gershwin to Liberace, Peter Nero, and other contemporary artists. Most of this library of over 10,000 songs has been converted to digital signals and placed on floppy disks that are available for popular microcomputers.

THE COMMODORE 64/128 AND APPLE IIc PACKAGES ARE NOW AVAILABLE FOR ONLY \$49.95. IT INCLUDES A MIDI INTERFACE AND A SIX SONG SAMPLE DISK WITH CLASSICAL, CONTEMPORARY, SHOW MUSIC, and even RHAPSODY IN BLUE played by the composer GEORGE GERSHWIN that you can enjoy with your MIDI equipped instrument.\* For information about other supported computers, MIDI cables, and Casio MIDI instruments, call or write:



**MICRO-W**  
DISTRIBUTING INC.

1342B Route 23  
Butler, New Jersey 07405

(201) 838-9027



Dealer & Distributor Inquiries Invited

\*For Best performance an eight voice polyphonic instrument is required  
Commodore is a registered trademark of Commodore Business Machines Inc.



Linking documents is supported, and **Writer** has both an "Include Files" and a "Variables" command. The first is used to include reports generated by the **Calc** spread sheet program, and the second is used to include data (addresses in letters, for example) prepared by the **Filer** program.

## 6 ... Page Format

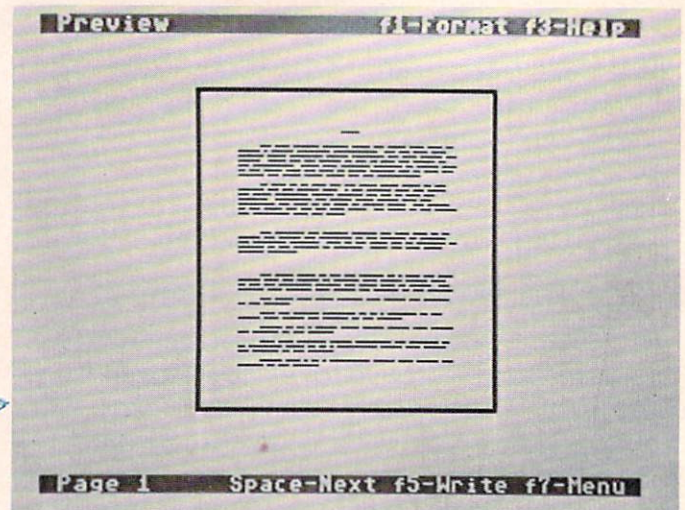
"Page Format" allows you to set margins, page length and width, page numbering and so on.

## 7-Preview

The preview feature is a nice one. The document is *graphically* displayed on the screen (to check margin spacing, page length, etc.) No attempt is made to show you the actual characters, but simple lines are drawn in their place (see photo). I smiled when I first saw this because I couldn't remember the last time I had actually *read* a document in a preview mode. And no windows to slide around, either!

## 8-Print

Selecting "Print" brings up a small sub-



menu in which you decide; number of copies(1-999), first page to print(1-999), starting page number(1-999), pause between pages (Y/N) and Commodore or ASCII (C/A).

## 9-Utilities

The "Utilities" menu lets you initialize a disk, get a word count of the document currently in memory (as well as how many of **Writer's** 700-line buffer you have used), and perform various test print-outs that show the number of columns and lines possible on a given page with your printer.

While working with **Writer**, you are guided throughout by menus, prompts and extensive help screens. After giving the manual a once-through, you may never need look at it again.

## Filer

**Creative Filer** is a filing program. It is not a "relational" data base. It can look at only one file at a time, and you are limited to one primary key field (the key determines the order of the records in the file) and one secondary key field.

Nothing wrong in that. Most poor souls are looking for nothing more than a simple filer when they buy a data base program. They take it home and sweat for hours over complex manuals just trying to put an address list on the computer.

**Creative Filer**, in contrast, is easy to learn and use. Files are defined in a straight-forward manner (you can't get fancy even, if you want to). Consequently, data entry, file maintenance and report production are also kept manageable. Simple print-outs can be made with the report writing section of this program, or you can send whole reports or data lists to a disk file for later use by **Writer**.

## Lotto Wizard

Better the Odds  
In ANY Lottery  
Any Game  
Any State

- Fully Documented
- Menu Driven
- Past Picks
- Number Data Base
- Number Frequency List

**Your State's Lotto Data Included On Disk**

If the game you play is in a state different from the one in which you live, please specify. Additional Lotto histories are \$5.00 each.

**C-64 Disk Only**

**\$17.95**

**Plus \$1.50 S & H**

Please Allow 3-4 Weeks For Delivery

**Sun Software**

11349 N.E. Fargo St.  
Portland, OR 97220-1606



## Calc

Calc is a spread sheet program, and like **Writer**, it does without the exotic or esoteric. You wouldn't be solving iterative problems or doing vector analyses with it. "Power" spread sheet users will not be taking copies of this program to work with them in the financial district, but for working out the family budget or pricing the sandwiches in your deli, it could be just the ticket.

Unlike heavies, such as **Multiplan** or **VisiCalc**, **Creative Calc** comes with a 24-page manual! Most ordinary folks can master it without giving up married life or six months' worth of weekends. Yet, those same folks will find that this program is all the spread sheet they need.

**Creative Calc** will send a finished spread sheet to a disk file for later use by **Writer**. (All of the disk files used to transport information between these programs are sequential PRG type files.)

## Conclusion

Paradoxically, one of the best features of these products (besides their ability to work together) is their lack of "advanced" features. I can name at least six or seven word processors that have many more features, but how often are you going to want to use programmable keys or 240-column input screens? While **Creative Writer** may be able to do only 75 percent of what **SuperScript** or **PaperClip** can do, most users will never have need of that missing 25 percent.

The absence of these "bells and whistles" make the programs easier to learn, and, by simplifying menus and options, quicker to operate. A sensible trade-off that will see the beginning or occasional user happily turning out results in short order. And that's what productivity is all about, isn't it?



D

### DAVID'S DIRECTORY DESIGNER

D

"If this can't do it to your 1541 disk directory -  
IT PROBABLY SHOULDN'T BE !"

Alphabetize all or part. Self documenting. Scratch, Rename or move. Add or delete outside quotes. Built-in disk monitor - Whole block w/ translation on screen at one time. Put your own comments in directory without loss of disk space.	Read all files. Fast and true. Print directory. Lock or unlock files. Whole block w/ translation on screen at one time.
---	---

MUCH MORE !! (It also works!)

SPONSORED by the Catalina Commodore Computer Club, Inc. of Tucson, AZ

This \$15.00 program, written by David Lovelock, has been donated to raise funds for the purchase of a special free use computer dedicated to search and rescue.  
(The author gets none of the funds.)

Send your \$15 check to "CCCC Search & Rescue Fund, P.O. Box 32548, Tucson, AZ 85750.  
(Allow 4 weeks but we usually get them out in 2 days.)

The program alone is worth much more, but you will also be supporting a worthwhile project. Incidentally the purchase is tax deductible. (IRS # 86-6004791)

D

Help us prove that Computer Hackers can be productive members of our society! Then when you hear of a computer assisted rescue you'll know you helped!

D



# "I'm Sorry . . . But I Don't Speak Hexidecimal"

by Shelly Roberts

Oh no! I can't believe it. It can't be happening! There's something going wrong with my 64!

Oh, sure, call it a CPU. Central Processing Unit. It's just an old computer to you. Number L00121603. What do you care? You didn't pay five hundred dollars for it. You didn't spend a whole year waiting for anything — *anything at all* — in the book stores to wear the number 64 just so you could feed it *something*. You didn't spend three weeks staying up nights typing data statement after data statement out of *Creative Computing*, of all places, only to lose your best friend forever from computing because she refused to help you check one more line of numbers — only to discover that it didn't run on your machine. You didn't have to live with the bad baby books: *Basic Games to Type*, the first *Manual for the Commodore 64*, *Kids and the Vic 20*. You didn't have to call Commodore long distance and wait 35 minutes for someone to answer to tell you had to do something funny to the Q key to get that ball character to appear on your screen. *You* probably had software.

You didn't have to help start your own user group.

This *can't* be happening! Not to my old friend. My constant companion. Through thick and thick. Three years. Of newsletters. Of boring brochures. Of playing **Motor Mania**. Of paying rent and electricity on a room for it to live in. Of sawing plywood doors to fit into a corner to give it a comfortable place to sit.

Here. I'll just jiggle this wire. Maybe that will do it. Yes. *Yes!* Something is better. It's stopped doing that funny thing on the screen. That's it. It must be that wire. Oh, no. It's doing it again!

I'll thunk it a little. That always works with the vacuum cleaner. Yes. I think the picture is better. It's holding . . . It's holding . . . It's . . . not holding.

Maybe it's the disk drive. Those are always going out of alignment. I know at least sixteen people who claim to be able to realign them. I hope. I hope. The disk drive I could cope with. I haven't gotten emotionally attached to the disk drive.

It's not the disk drive.

The problem is on the screen. Warping picture. Characters bending in half. Maybe it's the TV. An ancient Sony was never meant to be the fellow traveler of a computer. Even when it's good, the letters are always fuzzy. I needed a new set anyway. Maybe one of those compatible monitors. Of course, I couldn't watch Falcon Crest in the spaces between computing. But I could live with that. Anything but the computer. Please, don't let it be my computer!

It's not the TV.

I bought chips just for an occasion like this. It's obvious that it must be the chips. Aren't I smart, buying chips for my computer, in case it should ever fail me? I wasn't going to fail it. I have chips. It's the Vic chip, I bet. That's what my tech guru guessed too. What number is that? Not any number on any of the chips I bought. Well, maybe I will change the other chips. Maybe it really *is* one of the chips I actually have. I can change a chip. I can change spark plugs, how hard could it be to change a chip? Oh, no. They're all soldered. I can't change a chip.

I could take it in to an authorized service center. There must be one in this hemisphere. I saw one once. In giant 1/2 inch high hand letters on the window the sign said, "Factory authorized service center for Apple, Atari, Commodore, DEC, IBM, Mitsubishi (oh, maybe that was the car dealer's window down the block) and Wang. A friend used them once. "\$35 plus parts, and it will be ready next week." When she went next week, she was told, "Hey, Lady, give us a break. We only make thirty five bucks on Commodores. It'll be ready after we fix all the computers we actually make money on."

They wouldn't have the sensitivity to take good care of my old friend. Not the right way.

I could trade it in. I've heard there are ways. And places. But this is my friend. My pal. A member of the family. What can I do? The tears are coming now.

Goodbye, Old Friend.

I could have her stuffed and keep her in a place of honor on the mantelpiece.

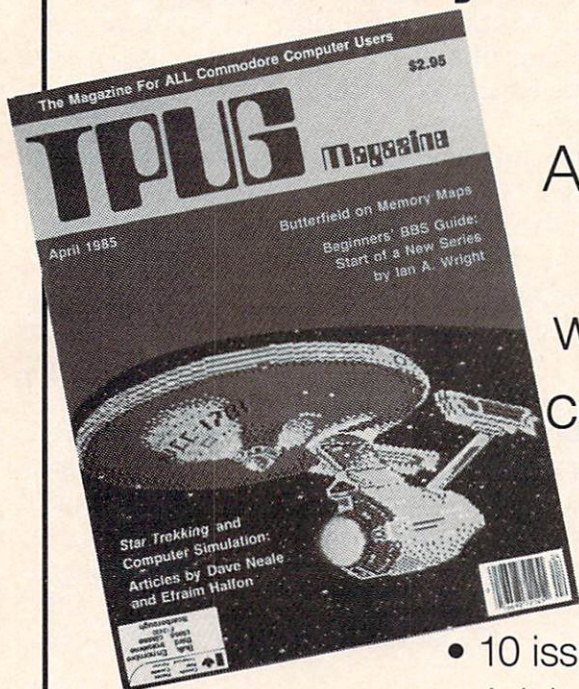
They shoot computers, don't they?

© 1985 by Write Protect Publishing. All rights reserved. Reprint in entirety only, with written permission.



# TPUG

**MORE THAN JUST ANOTHER COMPUTER MAGAZINE!**



A membership  
in the  
world's largest  
computer club  
will provide  
you with:



**TPUG**  
101 Duncan Mill  
Suite G7  
Don Mills, Ontario  
CANADA  
M3B 1Z3

- 10 issues of TPUG magazine
- Advice from experts like Jim Butterfield and Elizabeth Deal
- Access to our huge library of public domain software
- Access to our online help services
- All for only \$25/yr.

## JOIN US NOW!!

I want to join TPUG as an associate member.

Name _____	Home phone (____) _____
Address _____	Work phone (____) _____
City/Town _____	<input type="checkbox"/> Cheque enclosed
Prov/State _____	<input type="checkbox"/> Money order enclosed
Postal/Zip Code _____ Country _____	<input type="checkbox"/> Visa <input type="checkbox"/> MasterCard
My computer equipment is: _____	Card# _____
_____	Expiry _____
_____	Signature _____



# Piloting Your Commodore Fantasy Flights—Computer Combat

by Matthew Stern

*You are seated in the cockpit of the most advanced jet fighter ever built. State of the art instruments monitor your every move. A deadly arsenal of weapons awaits your commands.*

*Your air speed is 800 miles per hour. You are cruising at an altitude of 30,000 feet. Your on-board computer warns you of a nearby intruder. You turn up the afterburners and track the beacon on your radar. At first, you see just a speck on the horizon. You soon make out the silhouette of wings and the glowing nostrils of exhausts. You set your weapons to combat ready. The jet appears in your crosshairs. You put your finger on the trigger.*

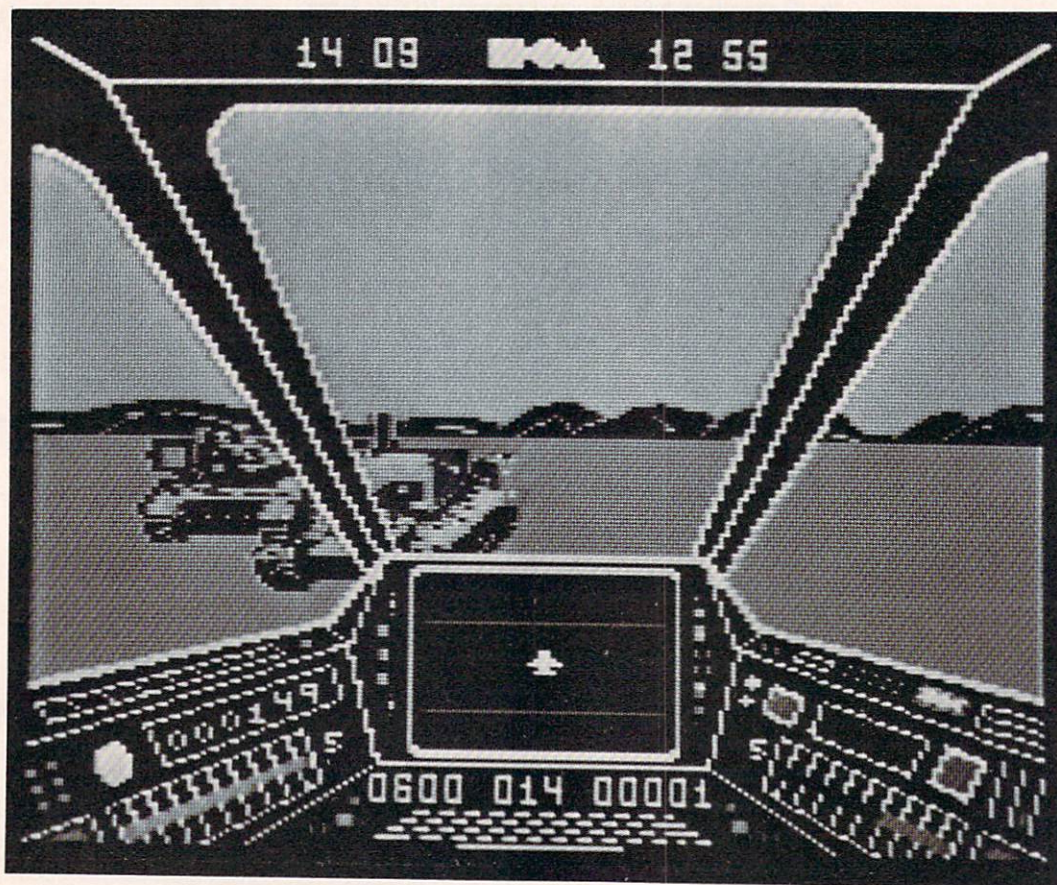
*The enemy quickly banks to the left. You follow in close pursuit. You try to keep the fast-moving shadow in your crosshairs and pray that he doesn't get behind you . . .*

Two new programs for the Commodore 64 and 128 capture the excitement of flying a

modern jet fighter: **Skyfox** by Electronic Arts and **Jet Combat Simulator** by Epyx. **Skyfox** features fast-moving, spectacular graphics. **Jet Combat Simulator** faithfully reproduces the flight controls of an F-15 fighter. These programs may be the closest you can get to flying an actual combat jet.

**Skyfox** puts you in the cockpit of a futuristic jet fighter. Your mission is to defend your homebase from both ground and air assaults and destroy the motherships which launch the invading forces against you. You have a choice of fifteen different combat scenarios, from practice to all-out invasion, and five skill levels. You can even pick different combat strategies.

**Skyfox** is controlled by both the joystick and the keyboard. The joystick maneuvers the craft, while you use the keyboard to turn on the auto pilot, to display the map, to arm guided and heat seeking missiles, and to control speed. (Speed may also be controlled by a second joystick.) By pressing **A** or **f7**, an auto pilot takes you to the





nearest enemy. A tactical map also lets you select your targets. Electronic Arts added a nice touch by putting all the keyboard commands on a single page of the documentation, so you can use it for quick reference.

The graphics in **Skyfox** are superb. They move quickly and smoothly. You can see the tanks grow larger as you approach them. The enemy jets are finely detailed. The scenery scrolls as you turn your plane. If Electronic Arts can produce graphics this good on a Commodore 64, just imagine what they'll do on an Amiga!

Graphics as detailed and fast-moving as **Skyfox's** do take up memory space. To get around this problem, Electronic Arts found an ingenious way of changing the combat scene from air to ground. While you are in a cloud bank between 1,000 and 10,000 feet, the next screen is loaded in from disk. This procedure will require you to wait a few seconds. You can move through the clouds more quickly by pressing **U** to go up or **D** to go down.

The aircraft controls are forgiving. If you hit the ground hard, you only lose some shield power in the higher levels. I didn't have any problems stalling or losing control. These controls allow you to concentrate on shooting down the enemy.

And boy, do you *need* to concentrate! As long as the mothership is airborne, six tanks or airplanes are launched for each one you shoot down. To save your base, you must first go after the quick-moving mothership. Your guided missile must be armed before you shoot, or the target will be gone before you can aim at it. Fortunately, you have an unlimited supply of ammunition in your laser cannons.

Epyx' **Jet Combat Simulator**, as the name implies, gives you a realistic experience of flying a jet fighter.

While **Jet Combat Simulator** doesn't have the same spectacular screen graphics as **Skyfox**, it *does* have the most realistic flight controls of any program available for the 64. As I flew **Jet Combat Simulator's** F-15 Eagle, I noticed how responsive the controls were. The slightest bank changed my heading. I was able to increase or decrease my altitude rapidly. I could do aerobatic stunts like loops and barrel rolls. All of these changes were displayed instantly on my instruments.

Like **Skyfox**, **Jet Combat Simulator** is controlled by the keyboard and an optional joystick. You have the choice of using both as you fly. The keyboard has additional controls for weapons, brakes, flaps, and landing gear. Like **Skyfox**, **Jet**

**Combat Simulator** also put all the keyboard controls on one page of the manual for easy reference. The manual also contains interesting background information about the F-15, including a cut-away diagram.

Flying **Jet Combat Simulator** takes tremendous skill by itself. When you take off, you have to be sure that you raise your landing gear before your speed exceeds 300 knots per hour. Since the controls are so responsive, you can easily lose your heading if you're not alert. Landing also requires plenty of practice. You must keep your nose and flaps up so you are at the right speed and angle as you approach the runway. **Jet Combat Simulator** lets you practice flying and landing in clear, foggy or windy weather.

You have fewer targets to shoot down than **Skyfox**, although tracking them down is much harder, especially in the higher skill levels. Enemy craft make quick evasive maneuvers. If the enemy gets behind you, you are easy prey. Unlike **Skyfox**, you have a limited amount of ammunition to use. You have to depend more on precise flying and timing than quick shooting.

While it would have been nice to have **Skyfox's** fancy graphics, in this case, **Jet Combat Simulator's** simpler graphics are beneficial. The plain horizon makes it easy to determine your degree of bank. Without the additional memory needed for graphics, the entire **Jet Combat Simulator** loads in at one time and stays in memory. Besides, you have enough to worry about just flying the aircraft, without looking at the scenery! In the areas that *did* matter, the graphics were exceptional. The instruments and map are done in fine resolution that was legible even on my TV set. When the enemy jet appeared in front of my nose, it almost seemed like it was real.

Epyx and Electronic Arts both created exceptional programs. I feel that both are equally good, and both will appeal to action game players. **Skyfox** will appeal the most to fans of great graphics and quick action, while **Jet Combat Simulator** will be enjoyed by people who like a more realistic flying adventure.

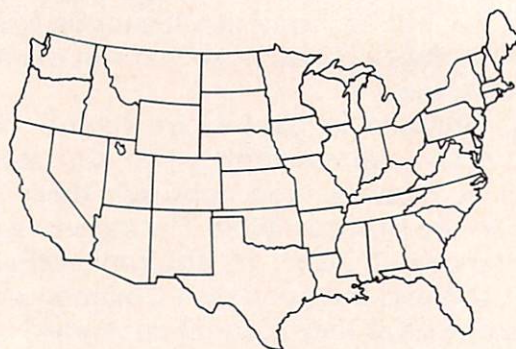
**Skyfox** and **Jet Combat Simulator** are available through most retail and mail order outlets. For more information, contact:

Electronic Arts  
2755 Campus Drive  
San Mateo, CA 94403  
(415) 572-ARTS

Epyx  
1043 Kiel Court  
Sunnyvale, CA 94089  
(408) 745-0700



# ROAD SEARCH:



## Getting From Here To There

by Shelly Roberts

When you live in New York City, you don't get the car out of the garage to go to the grocery store. You save the vehicular activity for those moments when you want to go to Missoula, Montana, or visit Disney World.

Until now, if you were like me, you did one of four things. You called your friend in Missoula, and inquired casually, "So how exactly do I get there from here?" And your friend would usually reply, "Well, when you get into the Greater Downtown area, look for the McDonalds on the left and the K-Mart on the right. You go three miles past the Gulf station, and turn left. You can't miss it!"

Or you trusted to luck and the benevolence of the highway department, and hoped that there would be enough white-on-green signs to guide you once you headed west. You only did this once if your trip required that you travel on any public road in New Jersey.

The third thing you could do was go to the gas station and pay a dollar and a half for a USA map, and another dollar and a half each for a map of every state you were likely to be traveling through. While having maps with you on any trip you are taking is highly recommended, this is not a suggested course of action if you happen to be making your journey solo ... unless you also happen to have a bladder problem, and you don't mind making bathroom stops every fifty miles or so. There aren't enough safe places to pull off the road on superhighways. And, besides, just the time it takes to refold the map to get it back in the glove compartment will add hours to your journey.

The fourth alternative, (and the one I usually choose), was to call up the Auto Club and ask them for directions. (If you are truly organized — something I never made a claim to be — you could actually go in person to the AAA and have them write you up a hinged map with a big red marker line taking you from state to state. But this requires that you get the car out and actually find your way to the auto club office — very time-consuming if you are trying to get ready for a trip. After getting them on the phone, and explaining that you are leaving in four minutes, and, no, you don't have time to come into the office, they will actually give you road instructions.

I usually carefully write them down in hieroglyphics on the back of the envelope my Visa bill came in. It was the same envelope I use to make notes on the trip instructions from my friend in Montana. Then when I was on the road, I would try to keep my eyes on the road, the rear view mirror, the speedometer, the box in the back that was sliding uncomfortably toward the front seat, and attempt to read what I had written in my too tiny scrawl. Did that "RT 28" mean that I was supposed to turn right in twenty eight miles or turn right and then go twenty eight miles? Or was I supposed to look for Route 28? And was that funny mark the place where my pen leaked, or was it the schematic of the fork that would either get me to Charleston, South Carolina or Fargo, North Dakota, depending on which one I took. Definitely not an ideal solution. But, I suspect, the one that most of us choose.



# Announcing a New and Practical Application



## ComputerEyes™



What can be done with  
**ComputerEyes**

- Make Custom T-SHIRTS, Scarfs, etc.
- Computer art
- Exchange "digitized" pictures
- Pattern Recognition
- Robotics
- Literally hundreds of practical applications
- Capture real-world images
- Plugs into the Game I/O port
- Save "pictures" to disk
- Print out all images with such packages as; PRINT SHOP, DOODLE, NEWSROOM, KOALA, etc.
- One year parts and labor warranty
- High Quality B/W video camera also available
- Full software support
- Join "free" public domain ART GALLERY exchanges
- **ComputerEyes** interfaces easily to any source of standard NTSC or industrial video. Including:
  - Video Tape Recorders
  - Video Cameras
  - Videodisks
  - TV Receivers with video outputs
  - Other computers

YES! I would like to make computer portraits.

YES! I want my computer to "see".

YES, Please send me **ComputerEyes** as follows:

— C-64 <b>ComputerEyes</b> .....	\$109.00
— Doodle Compatible Software .....	11.00
— Print Shop Compatible Software .....	11.00
— Koala Compatible Software .....	11.00
— Flexi-Draw Compatible Software .....	11.00
— PANASONIC/IKEGAMI Commercial grade B/W video camera with interface cable .....	139.00

### "UNDERWARE" ribbons (to make iron-on transfers)

— Black (for Epson MX 70/80/82, Okidata, Star Gemini) .....	12.00
— Color Pens (set of 5) .....	12.00
— Jumbo Color Pen Set (set of 7) .....	15.00
— Iron-on Coloring Kit (Contains 20 Sheets of transfer paper and a set of 5 pens) .....	15.00

**FOR VISA/MASTER CHARGE ORDERS CALL Toll Free**  
**1-(800)-523-2445, x48**  
 (Pennsylvania residents call 800-346-7511, x48)

**OR Send CHECK/Money Order and all inquiries to:**  
 HAL Systems, P.O. Box 293, Scotch Plains, NJ 07076  
 Please Note: For COD Orders, add \$5.00; NJ Residents  
 calculate 6% tax.  
 Prices include shipping and handling.

YOUR NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

HAL Systems, PO Box 293, Scotch Plains, NJ 07076

\*\*\*Dealer Inquiries Invited\*\*\*



Now there is a better way! Alternative number five comes from Columbia Software, and it is called **RoadSearch**, and it's about time.

**RoadSearch** will do everything your Auto Club does except change your flat tire or tow you into town. **RoadSearch** will give you the shortest auto route between where you are now and where you want to go. It will compute the number of miles you have to go, and tell you how much time it will take you to get there. It will tell you how much gas you will need, and how much gas you have used. It will tell you how much time it will take you to get from one point to another on the way, and it will tell you how much more time it will take you to get to your final destination. And it will do it in a clear, detailed print out that you can read while eating your drive-thru Big Mac, and searching for change for the toll booth. That's a lot.

**RoadSearch** will not give you a lot of fancy charts, graphs, maps, or sparkling colors. On boot up, the first thing you see is a white-on-black screen with an asterisk border for the title, and a simple menu. It's enough.



by Commodore

**In Stock NOW !**

At Your Full-Support

**Amiga Dealer**

**Clackamas Computers**

Canby Store  
1023 S.W. First  
Canby, OR 97013  
(503) 266-2539

Clackamas Store  
16234 S.E. 82nd Dr.  
Clackamas, OR 97015  
(503) 650-0379



The menu gives you six choices:

- 1 LIST CITIES
- 2 LIST ROAD CONNECTIONS
- 3 CHANGE 20 MPH OR 50 MPG
- 4 DEVELOP A ROUTE
- 5 COMPUTE SHORTEST ROUTE
- 6 CHANGE ROAD DISTANCE

### Option 1 — List Cities

There are four hundred and six of them. The Columbia folks included the likes of Boston, New York, and Los Angeles, of course. But you can also find your way to Yakima, Washington, or Pratt, Kansas. They also listed junctions between major interstate highways, in case, for some strange reason that's where you want to go. This is a necessary option because it gives you the index number, which is a faster way to enter your departing or destination city, and because it also gives you the spelling and syntax format the program will accept. If, for example, you enter NY NY instead of New York NY, you will be told: "Not entered properly. Please try again." It is a slow process, and you must start at the top of the list for every letter, so if you want to find the number for Syracuse NY, you have to start at Sacramento CA.

### Option 2 — List Road Connections

You enter any city on the list, and this option will tell you the major arteries that lead from it, and where they lead to. This is helpful if you want to build your own route, which is another option later down the list.

### Option 3 — Change 20 mph or 50 mpg

If the old Chevy only gives you six miles per gallon, or your radar detector lets you think that you can get away with 85 miles per hour, you can adjust the program and the state troopers never have to know.

### Option 4) — Develop A Route

This is used in conjunction with option 2, and lets you chart your travels from Ohio to Vermont via New Mexico. Sometimes the shortest route isn't necessarily the way you want to go.



### Option 5 — Compute Shortest Route

This is the option you will use most, so I will go into the most detail about it. You enter your departing city, and when it comes up, you are given a check and abort option, in case you entered it incorrectly. Then you do the same with your destination city.

You are asked if you want to delete any roads. This comes in handy if you know for sure that Interstate 90 was washed out in the last hurricane, or if road construction along a particular route has turned it into road constriction.

Then you can go brew yourself a cup of coffee while the computer sorts through its database and, route by route, adds up the total mileage for your intended destination. The longer the distance, the longer it takes. The program asks you to "Please be patient." It isn't kidding. Computing the mileage from Carlsbad NM to Columbus GA took about a minute and a half. It isn't really all that long in the cosmic scheme of things, but when you are staring at a black and white screen, it seems forever.

After the on-screen mileage is displayed, you are treated to a much more detailed display and another option menu. The display includes:

```
FROM..... CITY
TO..... CITY
TOTAL DISTANCE..... 1234 MILES
TOTAL TIME..... 12:34 HRS:MIN
AVERAGE SPEED..... 12 MPH
VEHICLE MPG..... 34 MPG
TOTAL GALLONS..... 12 GAL.
```

From here you can choose to print or list the route summary, print or list the full route in 40 columns, print or list a detailed route in 80 columns, change your MPH or MPG, or start over.

The screen list option is helpful for previewing the route before you commit it to paper or commit yourself to driving through Joliet, Illinois, and risk your brother-in-law, the liquor store delivery man, spotting you. It is also good if you don't have a printer and want to scrawl the directions down on the back of your MasterCard bill.

The 40-column printout gives you the route number to the next city on the way to your destination, the name of the city, the amount of travel time, the mileage, and the cumulative time

toward your total trip. The 80-column print out is more detailed with the same information manipulated helpfully. You get the same info as on the 40-column printout, plus the time, mileage, gas in reverse. That is, how much gas you have left, how many more miles you have to go, and how much more time before you can detach the CB radio from the cigarette lighter.

### Option 6 — Change Road Distance

This is the last option on the primary menu, and when you call it up it tells you, "This subroutine alters the roadmap database on this disk. Do you really want to change the database? (Y/N)?" I don't know why this option is included, but perhaps a detour or construction will considerably change the mileage from here to there, and you will need it. I'm glad it's included, but I can't see that I will be using it very often.

### Advantages of RoadSearch

The advantages of this program are obvious. If you are a traveling salesperson, a Greyhound bus driver, manager of a rock group or a touring road company, or if you just take a lot of trips each year, this program will pay for itself in convenience, not to mention gas not wasted making the wrong guess at 55 miles an hour on the expressway. And you only have to pay for the program once, not once a year the way you do with the Auto Club.

**RoadSearch** gives you a printout in words and numbers, so you can handle it easily while you are driving. With a map, first you have to find out where you are, then you have to match it to C2 or H9. Then you have to interpret whether the line under your finger means that you are approaching an on-ramp, an off-ramp, a semi-circular canal, or your car will fall off the end of the earth. **RoadSearch's** word map fits on a regular sheet of paper, and you never have to refold it unless you want to.

**RoadSearch** will give you the shortest routing on major highways. I often travel from New York to Boston, and have found on my own, with the help of some truckers, what I believe to be the shortest route, via I-91. But it is not the most obvious one. Taking I-95 might seem a more natural choice. When I quired the program for the Boston-NY run, I wanted to see how well it really knew the shortest route. It sent me on I-91. I became a believer.



## Disadvantages

There are several. The program is relatively slow. There might have been more efficient algorithms that would let you string search for the particular city you wanted without having to go through the whole list. There also must have been a way to speed up the route and mileage plotting. But all in all, the speed of the program is merely annoying, not a major impediment.

**RoadSearch** won't fix a flat tire or tow you to town the way the Auto Club will.

And **RoadSearch** does not recognize minor highways that might, in fact, give you the shortest route. In plotting the directions for a trip from Burlington, Vermont to Albany, NY, the program routed me all the way around Lake Champlain. It did not know about Route 7 to Route 22A to Route 149 to I-87, which is how the natives go. The local routing took me 3+ hours. **RoadSearch's** instructions wanted me to drive for 4 hours and 58 minutes. It important to match the program's output with your own native intelligence. It would have been helpful to be able to add favorite or obvious minor routes to the

database, but there is not an option for this.

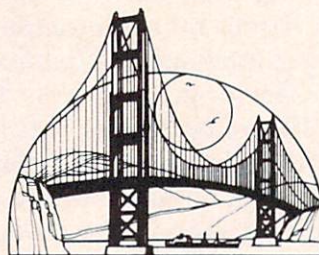
## Conclusion

**RoadSearch** is available from:

Columbia Software  
Box 2235W  
Columbia, MD 21045

**RoadSearch?** I don't leave home without it.

© 1985 by Write Protect Publishing. All rights reserved.



<h1>Russell &amp; Associates</h1> <h2>Authorized Commodore™ Service Center</h2>	
<h3>Commodore 64</h3> <ul style="list-style-type: none"> <li>• Complete Diagnostic Checkout \$9.95*</li> <li>• Repair UP TO \$54.95</li> <li>• Warranty Work</li> <li>• <b>FREE Estimates</b></li> </ul> <p><small>*Price Applies Toward Any Repairs</small></p>	<h3>Disk Drive Alignment</h3> <h2>\$39<sup>95</sup></h2> <ul style="list-style-type: none"> <li>• Alignment</li> <li>• Cleaning</li> <li>• Speed Adjustment</li> <li>• 30-Day Warranty</li> <li>• Parts Extra</li> <li>• Dealers Welcome</li> </ul>

*Service Available At Two Convenient Locations*

10453 N.E. FOURTH PLAIN BLVD.

VANCOUVER, WA

(206) 892-8036

2700 N.E. Andresen

At **COMPUTER MART**



# ATTENTION!!! PRICE SHOPPERS

WHY PAY MORE\* ANYWHERE ELSE  
WHEN YOU CAN SHOP AT

## SOFTWARE CENTER

for the best selection of software & accessories?

### NOVEMBER SPECIALS:

Buy an Epson LX-90 dot matrix printer  
& get a FREE interface card for your  
Commodore 64 ( \$ 60.00 Value)

**\$ 329.00**

Includes Epson Printer Interface Card for Commodore 64

### MASTER MODEM

300 baud auto dial/auto answer modem  
Includes Modem Master software diskette

**\$ 44.96**

#### SOFTWARE SPECIALS

	Retail	OUR PRICE
Your Personal Net Worth	\$ 79.95	\$ 59.96
Vizastar 64	\$119.95	\$ 89.00
The Hobbit	\$ 29.95	\$ 22.46
Winter Games	\$ 40.00	\$ 30.00

626-8696

## SOFTWARE CENTER

11386 SW Beaverton-Hillsdale Hwy.

Beaverton, Or

STORE HOURS:

Mon-Fri 9-6 Sat 10-6 Sun 12-5

\*Guaranteed  
Lowest  
Prices  
(Rules  
posted in  
store)



# More Magic: Flags of Mystery

by John Olsen

We're not talking about programming tricks and shortcuts, here. We're talking about *real* magic. This is where your unassuming little Commodore suddenly transforms into a master of illusion! *Poof*, there is a billowing cloud of white smoke, and standing before you is Commodore the Magnificent. Will it perform the famous levitating keyboard trick? Maybe a feat of mentalism? You wait in breathless anticipation.

Today, you will witness a magical transformation. Your Commodore computer will turn into a Hewlett-Packard computer, complete with touch-screen. That's right, your own Commodore will have a touch sensitive screen, just like that more expensive computer! You will choose one of sixteen flags shown on the screen, by touching it. And the computer will tell you which one you are touching! *Honest!*

All you have to do is type in the following program. Be careful to type it in exactly as shown in the listing. Be especially careful with the screen graphics characters. If they are not precisely as shown in the listing, the program will not work

properly. If you don't have the time to type it into your Commodore, or hate typing, you can wait until it is released on one of *The Guide's* public domain disks. Or you may find it available over the phone on a local bulletin board system. It has been released to public domain, so should be available from a variety of sources.

But you're *still* skeptical about the magic trick. You certainly don't believe that your Commodore will physically turn into a different brand of computer (and you're right). But how can the computer tell where you are touching the screen? Is it some new high technology, like using a light pen? Can it be applied to other programs? No. Calm down, it's only an illusion. You are just fooled into believing that the screen is touch sensitive. It's really your old friend playing a trick on you.

When you first run the program, you are shown a picture of sixteen colored flags. You are asked to touch the screen on any flag of a certain color. Yes, I know it will make fingerprints on your screen, but humor me. Then you are asked to move to any flag of some specified color. This is repeated twice, at which time the computer will tell you exactly where you are touching the screen. And it never fails!

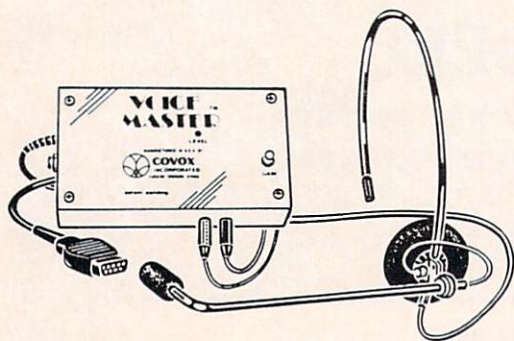
How is this accomplished? The secret is about to be revealed. If you want to be fooled and continue to enjoy the mystery, *read no farther*. Instead, start typing in the program. Then run it and be prepared for an amazing experience!

The secret to this trick is based upon geometry. The flags are laid out in a pattern of four rows and four columns. You will be forced to pick a certain flag, by taking certain general moves. The computer knows ahead of time which flag you will choose. In fact, it will force you to choose that flag.

The computer may start by asking you to touch any flag that contains the color red. Since there are seven such flags, you feel that your choice is fairly free. Then it may ask you to move up or down to the nearest green. Then left or right to the nearest yellow. And finally, up or down to the nearest blue. At this point the computer knows where you are. It has forced you to move to this specific flag.

The forcing was done in a subtle manner. You will find your original choice was in any of

## THE AMAZING VOICE MASTER



- Record & playback speech in your own voice
- Recognize your spoken commands
- Hum or sing to compose or play music in real time — notes and chords!

All this and more for only:

**\$89.95**

Add \$4.00 for shipping & handling

*You won't believe it until you hear it!*

**ASK YOUR DEALER NOW FOR A VOICE MASTER DEMONSTRATION**

Or call (503) 342-1271 for a telephone demonstration and receive a **FREE** audio cassette demo tape.

Note: Early Voice Masters have trade in value! Call for details.



**COVOX INC.**

675-D Conger St., Eugene, OR 97402  
Telex 706017 (AV ALARM UD)



three columns. There was no red flag in one column. Then you moved up or down to green. At this point you were in one of two different rows. The other two rows contained no green flags that you could move to. Next you were asked to move left or right to yellow. Now you will find you have been forced into one column. There were no other columns that had a yellow flag you could move to. Finally, you were asked to move up or down to any blue. That column contained only one blue flag. And you were forced to take it.

You see, gradually you were funneled into the flag that the computer wanted you to take. At first, you had a wide variety of choices. Then you were funneled down into three or four choices, found in two rows. Next you were funneled down further to only two choices, found in one column. And finally, you were funneled down to only one choice in that column.

However, this by itself is not going to make a very mystifying trick. If you always end up at the same spot whenever you play the trick, it will be soon apparent that you are being forced into that position. So the computer must be programmed to choose any of the sixteen flags, and force you into one of them at random. That would require that you find sixteen different paths that would force the player to a specific flag. That's not too efficient, so I found a different way.

You actually only need to find paths to three different positions: a corner position, a center position, and a side position. All others can be found by either rotating the puzzle or reflecting it, or both. So I only had to design three different

tricks. I designed one that would force the player into the upper right corner. Another forced the player into the third flag of the last column. And the third trick forced the player into the third flag of the second column. Then by rotating or reflecting the puzzle (or a combination of both) I could force the player to take any of the sixteen flags.

By randomly changing the final position of the flag you are forced to take, the trick becomes much harder to figure out. But to confuse things further, I changed the colors too. Instead of always starting with red and moving to green, this will vary each time. When I wrote the program, I thought in terms of color number 1 and color number 2, not red and green. That way, the colors could be shuffled into an array each time the program was run. And each time, the colors will be different when it is played. Naturally, the color of the flags must match the shuffled colors in the directions if the trick is to work. So the colors of the flags appear different each time, too.

One last thing I did to make the trick even harder to see through, was to give each flag two colors. If each flag were a single color, the "force" would be more obvious. However, by giving each flag two colors, it gives the appearance of more choices and more variety. Thus the trick appears even more impossible.

Notice that the actual secret to this trick is quite simple. You want to funnel the player into a single flag of your choice. But this by itself will not make a good trick. Misdirection has to be added. For that reason, the puzzle was rotated and reflected to give a random position. The colors were changed at random, and each flag was given two colors. Remember this if you try to design your own tricks. Start with a simple idea, and then cloud it in misdirection. You can do it. I'd like to see some of your results.



```

1 rem .....
2 rem :
3 rem : (c) 1984 john olsen :
4 rem : p.o. box 181 :
5 rem : newberg, or 97132 :
6 rem :
7 rem : placed into public domain :
8 rem :
9 rem .....
10 poke53280,0:poke53281,0
11 print""tab(12)"Flags of Mystery"
12 printtab(13)"by John Olsen"
13 dim c(4),m(3,3,1),n(3,3,1),d$(1),c$(4)
14 fory=0to4
15 x=int(rnd(1)*4)
16 ifc(x)=0thenreadc,c$:c(x)=c:c$(x)=c$:goto19
17 x=x+1:ifx>4thenx=0
18 goto16
19 nexty
20 data2,red,6,blue,5,green,7,yellow,1,white
21 d$(0)="up or down"
22 d$(1)="left or right"

```



```

23 fory=0to3:forx=0to3
24 readc:m(x,y,0)=c:n(x,y,0)=c
25 readc:m(x,y,1)=c:n(x,y,1)=c
26 nextx,y
27 data0,3,1,0,3,0,1,3,1,4,0,1,3,1,4,2,0,1,4,2,1,0,3,2,2,1,0,1,2,4,2,3
28 r=int(rnd(1)*16)
29 ifr=0theni=3:j=0
30 ifr=1theni=3:j=3:gosub50
31 ifr=2theni=0:j=3:gosub50:gosub50
32 ifr=3theni=0:j=0:gosub48
33 ifr=4theni=3:j=1
34 ifr=5theni=2:j=3:gosub50
35 ifr=6theni=0:j=2:gosub50:gosub50
36 ifr=7theni=1:j=0:gosub50:gosub50:gosub50
37 ifr=8theni=0:j=1:gosub48
38 ifr=9theni=2:j=0:gosub48:gosub50
39 ifr=10theni=1:j=3:gosub50:gosub48
40 ifr=11theni=3:j=2:gosub50:gosub50:gosub48
41 ifr=12theni=1:j=2
42 ifr=13theni=1:j=1:gosub50
43 ifr=14theni=2:j=1:gosub50:gosub50
44 ifr=15theni=2:j=2:gosub48
45 m1$=c$(3):m2$=c$(4):m3$=c$(0):m4$=c$(2)
46 ifr<12thenm1$=c$(0):m2$=c$(2):m3$=c$(3):m4$=c$(4):ifr<4thenm4$=c$(1)
47 goto52
48 fory=0to3:forx=0to3:n(x,y,0)=m(3-x,y,0):n(x,y,1)=m(3-x,y,1):nextx,y
49 goto51
50 fory=0to3:forx=0to3:n(x,y,0)=m(y,3-x,0):n(x,y,1)=m(y,3-x,1):nextx,y
51 fory=0to3:forx=0to3:m(x,y,0)=n(x,y,0):m(x,y,1)=n(x,y,1):nextx,y:return
52 print"   Place your finger on any flag that"
53 printspc(3-int(len(m1$)/2))"contains the color "m1$.  Press a key.";
54 print"";
55 fory=0to3:print"                                     ";
56 forx=0to3:poke646,c(n(x,y,0)):print"                               ";nextx
57 forz=1to2:print"                               ";
58 forx=0to3:poke646,c(n(x,y,1)):print"                               ";nextx,z:print"
59 forx=0to3:poke646,c(n(x,y,0)):print"                               ";nextx:ify<3then-
print" ";
60 nexty:gosub78
61 d=0:ifr/2<>int(r/2)thend=1
62 ifr=15orr=11thend=0
63 ifr=10thend=1
64 print""tab(5-d)"Move your finger "d$(d)" to"
65 printspc(8-int(len(m2$)/2))"the nearest "m2$.  Any key.":gosub78
66 print""tab(d+5)"Now, move "d$(1-d)" to the"
67 printspc(11-int(len(m3$)/2))"nearest "m3$.  Any key.":gosub78
68 print""tab(6-d)"Finally, move "d$(d)" to"
69 printspc(8-int(len(m4$)/2))"the nearest "m4$.  Any key.":gosub78
70 poke781,5*j+6:poke782,9*i+3:poke783,peek(783)and254:sys65520
71 forx=1to50
72 print"           you      chose           ";
73 fory=1to20:nexty
74 poke646,c(n(i,j,0)):print"           ";
75 poke646,c(n(i,j,1)):print"           ";
76 poke646,c(n(i,j,0)):print"           ";
77 fory=1to90:nexty,x:run
78 wait197,64:wait197,64,255:poke781,3:sys59903:poke781,4:sys59903:return

```



# Beginner's Corner:

## The World Of Printer Interfaces

by Mindy Skelton

Well, I see by the old digital clock on the wall that another month has flown by while I wasn't looking, and it's now time for the next Beginner's Corner. As I sit here sweltering in the August heat (and believe me, Amtrak cars whose air-conditioning is broken are mind-bogglingly hot on a muggy afternoon) struggling with the problem of contriving to fan myself and type at the same time, I find myself wishing that the month's topic was a comparison of swimming pools across the nation. Sadly for me — but happily for you — it's not. This month we continue with our look at the wonderful world of printers, interfaces, and printer codes.

Last time I said we were going to talk about interface capabilities, dip switches and printer codes ... so, true to my word, here we go.

First, let's look at dip switches. Get out your magnifying glass because dip switches are those tiny little on/off switches you may have noticed on your printer or interface! By the way, "dip" is an abbreviation for "dual-in-line-package" (an electronic term). These microswitches will probably be found on both your printer and your interface. They are usually hidden away where they are least convenient to get at. In some cases it is necessary to actually open the protective case and partially disassemble the interface to get at them.

Unless you are less than one foot tall, they are too small for you to set them without using a device of some sort. This device is usually (at least around my house) a pen or pencil point. Recently I saw articles in several user group newsletters (I do SO read them!) which advocated

**NEW UPDATED VERSION**  
Now Includes  
**1541 FAST NIBBLER**

**ANOTHER MASTERPIECE**

The Programmer **MIKE J. HENRY** has done it AGAIN with

# FASTHACK'EM

**FOR THE COMMODORE 64**

DUAL DRIVE  
**MSD**

- Automatic back-up of nearly all protected disks in **68 Seconds!**
- Using unique track analysis process, protection schemes are treated as normal data giving you an original back-up.
- Equipped with Special Auto-Back-up.\*\*

SINGLE  
**1541**

- FASTEST single drive back-up ever made, less than **2 Minutes!**
- Backs-up all standard disks in only **3 Passes!**
- Nibbles protected disk in less than **3 Minutes!**

TWO DRIVES  
**1541**

- Automatically backs-up a standard disk in only **35 Seconds!**
- Nibbles protected disk in less than **60 Seconds!**
- Also equipped with Special Auto-Back-up\*\*

**Dealer  
Inquiries  
Welcome!**

### \*\*SPECIAL

Auto-Back-up After booting up, the computer is no longer necessary, and may be disconnected. The drives automatically detect the disk being inserted and removed. An absolute must for multiple back-ups!!!  
All routines are highly reliable and include full verify option.

**EASY TO USE**  
ALL VERSIONS  
ON ONE DISK

**ONLY \$29.95**  
ADD \$3.00 SHIPPING



Check, Money  
Order, VISA,  
**MASTERCARD**  
Accepted  
Add \$3.00 for  
C.O.D.'s



**ALWAYS SAME  
DAY SHIPPING**

**BASEMENT BOYS SOFTWARE**

P.O. Box 30901 Portland, OR 97230-0901

**(503) 256-5506**



sharpening one end of a pencil-sized dowel and thus fashioning a dip-switch setting tool. You might want to keep this in mind if you have as much trouble keeping pens and pencils around your computer as I do. Dowels, being generally less useful, are less likely to be spirited away. Well, helpful hints aside, what good are dip-switches?

In order to give you maximum versatility in your equipment, manufacturers often allow you to set certain parameters according to your needs.

*Note:* Please do not think the examples listed here exhaust the possibilities of dip-switch capabilities . . . they are merely a representative sample.

On your printer, such things as whether or not an automatic line feed is generated, whether or how your printer signals it is out of paper, whether the printer expects a seven- or eight-bit interface, and the like, are controlled by dip switches.

On your interface, depending on the brand, you may be able to set automatic line feed to on or off, determine the device number, or choose transparent or emulate mode. A word to the wise — if both your printer and interface have settings for automatic line feed, be sure they are set the same. If one is set for “line feed on” and one is set for “line feed off”, no good will come of it. Your manuals will have to be your guide to the which switches you turn on or off.

Read both your printer and interface manuals carefully. A little experimentation should help you find the optimal settings for you and your particular machine. Some kind interface manufacturers even tell you the exact settings you want for different machines, thus eliminating the need for experimentation. Other manuals are written so strangely that experimentation is the only way.

I'd like to tell you that once you play with the setting options, read your manuals, find your best settings and fight with your little switches, you will never need to change them again. I'd like to tell you that, but frankly, it depends on your computer lifestyle. If you frequently change back and forth between fan-fold and single sheet paper, or if you access several different printers and don't have a switching device, or if you address radically different computer systems, be prepared to use your dip-switch setting device a

lot. If, on the other hand, you *never* use single sheet paper, and your interface might just as well be hard-wired in for all the times you change between printers, you might be able to stay with your original settings.

A minute ago I mentioned “transparent” vs. “emulation” mode. This is a common enough feature to deserve a few well-chosen words of explanation. With your interface set in emulation mode your computer thinks it is attached to a Commodore printer and all commands are dealt with from this viewpoint. With your interface in transparent mode, the commands you send are passed through just as you send them (with allowances for interface peculiarities, such as those we discussed last month). Why would you want to use one or the other of these modes? Emulation mode would allow you to take advantage of programs which are set up to expect a Commodore printer. In this mode your printer is able to do anything a Commodore printer could do, but no more.

On some interfaces, the emulation mode will translate your Commodore graphics into mnemonics (you know — (CD) for Cursor Down, etc.) Others will allow you to print the actual graphic symbols, while other interfaces will give you the graphic symbols regardless of the mode you are in. There is a *lot* of variation in interfaces.

Transparent mode allows you to take full advantage of your printer. For example, if your printer can print lines longer than 80 characters, you can only take advantage of this in transparent mode. A Commodore printer can't print more than 80 characters on a line, so in emulation mode, neither can your printer.

This gives you the general idea. Decide which setting is best for you. And remember, you can always switch back and forth. There could even be times when, depending on your interface capabilities, some commands are passed in emulate mode and others in transparent. Experiment!

Let's talk now for a minute about how your interface and printer can work together to help you print graphics. Most printers have some graphics capabilities, but what you can do with them depends a lot on your interface. If, for example, your interface doesn't allow your printer to print graphic characters on the same line as alpha/numeric characters, you are severely



limited in what you can do.

Aside from this consideration, some interfaces give you greater control over your firing pins. Remember last time when we talked about how a dot matrix printer forms its characters? If you can tell the printer which pins to fire, you can create your own characters. Some interfaces allow you to create and download your own characters and fonts to the RAM in your printer. This gives you almost unlimited capabilities for printer graphics if you are willing to put in the work to define your characters. The pattern of firing pins is sent to your printer as a unique numeric CHR\$. Again, I would advise you to consult your manual, since machine capabilities differ greatly.

Another thing your interface can do for you is give you a *print buffer*. A print buffer is an area of memory which can be filled with the text of your document. The larger the buffer the more information that can be transmitted and printed before the whole process has to pause while additional information is sent. If speed is very important to you, look for an interface with a large buffer.

Finally, a word or two about printer codes. In the back of your printer manual you will find a long list of what may be called printer or function codes. You will probably find both decimal and hexadecimal codes, as well as control codes for a variety of options such as type faces, lines per inch, tab positions, etc. These values (in some form) are the codes you need to transmit to your particular printer in order to get it to do what you want. For example, on a Gemini 10, if you want to use italics, you need to send your printer the control code "ESC 4". The decimal code for this is 52 and the hexadecimal code is 34. Great ... very helpful. Now how do you get this information to your printer?

I'm going to make the assumption that you are trying to do this from within a wordprocessor (although you don't *have* to be). Given our assumption, let's look at the steps you need to take.

First, you need to transmit the ESCape signal to your printer (not quite so easy on the Commodore, which, as you may notice, does *not* have an escape key). The ESCape signal warns your printer that whatever follows is to be interpreted as a command and not just as a number or letter. ESCape is CHR\$(27) and in immediate mode that is what you would send, but since this

is so commonly used and so important a command, most word processors have a built-in way of transmitting the code. In **Easy Script**, pressing the **f1** key and then the **up-arrow** key (next to RESTORE) will automatically generate a CHR\$(27). Other word processors do it differently, but your manual will tell you how.

Now that you've sent your ESC code you still have the problem of sending the code for the action you want. This is surprisingly easy (although reading the documentation for it isn't!) Early in your program, you assign an alphabetic or numeric value (depending on your word processor) to the codes you are going to use. To continue with our example of using italics, I would include a line in my program which (in **Easy Script**) would be preceded by the reverse asterisk generated by the **f3** key. This would make sure the program knew what followed was a command line and not to be printed.

*Note:* In **PaperClip** the line would be preceded by the checkmark generated by pressing the **British Pound Sign** key, and in **Speedscript**, the line would be preceded by a **ConTRoL slash**.

For purposes of our example, let's say the line would be:

[reverse asterisk] 1 = 52

(Remember 52 is the decimal code for enabling italics). Then, in the body of my paper, when I wanted to use italics, I would send my ESCape code (**f1**, **up-arrow**), followed by 1 ... and, *voila* ... *italics*! This same procedure would be followed for any of the commands you might want to send.

All of this gets easier with practice, so get reading, and see how much more fun you can have when you're using the full capabilities of your system. 'Till next time, have fun!

© 1985 by M. Skelton. All rights reserved.



"I desire so to conduct the affairs of this administration that if at the end, when I come to lay down the reins of power, I have lost every other friend on Earth, I shall at least have one friend left, and that friend shall be down inside of me."

Abraham Lincoln



# Shop At COMPUTER MART For

## Diskettes

Generic SS / DD.....	79¢
Generic DS / DD.....	89¢
Generic SS / DD (Gray).....	69¢
Kodak SS / DD.....	\$17. <sup>95</sup>
Kodak DS / DD.....	\$26. <sup>95</sup>
Maxell DS / DD.....	\$24. <sup>99</sup>

★ Discounts Are Available  
On Large Quantities

## Interfaces

MW 350 Graphic Interface.....	\$89 <sup>99</sup>
Cardco G-Wiz.....	\$49 <sup>99</sup>
P.P.I. Interface.....	\$49 <sup>99</sup>

## Joysticks

Wico Boss.....	\$15 <sup>95</sup>
Wico Command Control.....	\$24 <sup>95</sup>
Apple Wico Command.....	\$36 <sup>99</sup>

## Disk Doubler

- Doubles Diskette Storage Space
- Cuts Square Notches



# \$6<sup>99</sup>

## Printers

Panasonic 1091.....	\$269 <sup>99</sup>
Panasonic 1092.....	\$399 <sup>99</sup>
Okidata 120.....	\$249 <sup>99</sup>

## Diskette Storage

Flip 'n' File.....	\$ 1 <sup>99</sup>
Data Defender 10.....	\$ 3 <sup>99</sup>
Data Defender 35.....	\$ 5 <sup>99</sup>
Disk Bank 5.....	holds 50 \$10 <sup>99</sup>

## Magazine & Book Section

- |              |             |                    |
|--------------|-------------|--------------------|
| • The Guide  | • Ahoy      | • Abacus Books     |
| • Gazette    | • Byte      | • Compute Books    |
| • Transactor | • Incider   | • Machine Language |
| • Compute    | • A +       | Books              |
| • Horizon    | • Soft Talk | • Adventure Game   |
| • Run        | • Info 64   | Books              |

• • • Plus More • • •

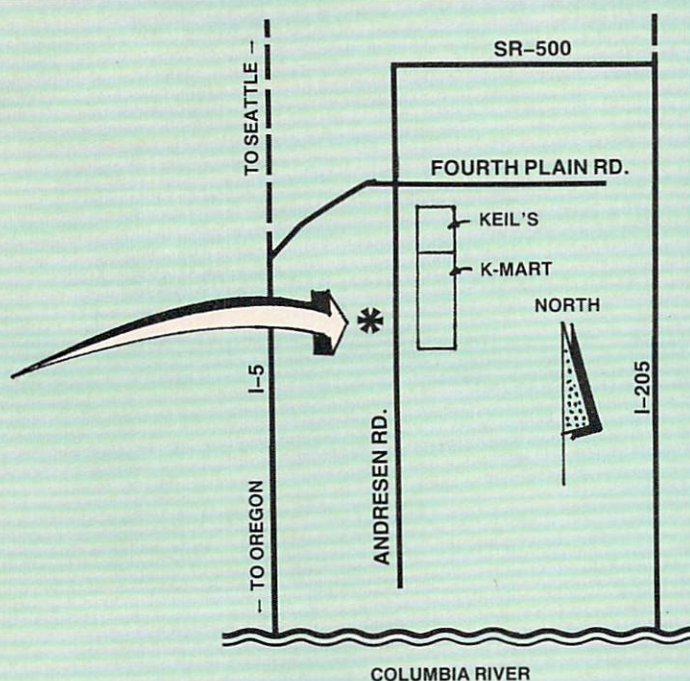
# 20% OFF

## All Books In Stock

COUPON



# All Your Computer Needs !



**COMPUTER MART**

**#1 In  
Customer  
Support**

2700 N.E. Andresen Rd.  
Vancouver, WA 98661  
(206) 695-1005

Open 7 Days A Week:  
Monday-Saturday.....9-8  
Sunday.....12-5

## Software & Accessories

Print Shop.....	\$36 <sup>99</sup>
Print Shop Graphics Library #1.....	\$19 <sup>99</sup>
Print Shop Graphics Library #2.....	\$19 <sup>99</sup>
Kwik Write.....	\$19 <sup>95</sup>
Kwik File.....	\$19 <sup>95</sup>
Kwik Calc.....	\$19 <sup>95</sup>
Kwik Spell.....	\$19 <sup>95</sup>
C-128 Monitor Cables.....	\$29 <sup>95</sup>
C-64 Repairable Power Supply.....	\$39 <sup>95</sup>
4-Slot Expansion Boards.....	\$39 <sup>95</sup>
Colored Printer Paper.....	\$13 <sup>99</sup>
Surge Protectors.....	\$19 <sup>99</sup>
1702 Monitor Filter Glasses.....	\$10 <sup>00</sup>
Disk Drive Cleaning Kit.....	\$ 6 <sup>99</sup>
Write Protects 100 ct.....	\$ 1 <sup>59</sup>

**Commodore 64 Repair..... UP TO \$54<sup>95</sup>**  
**1541 Drive Alignment.....\$39<sup>95</sup>**

## Commodore 64 and 128 SOFTWARE PREVIEW

- \$4.00 for 3 days.
- No Deposit Required
- Choose from over 1000 titles
- Available Locally Only!

## Mail Order Available



**COD**



**Same Day Service**

Free Freight on Orders Over \$50.00.



# “Real Gamers . . . Don’t Read Instructions”

by Robert J. Sodaro

For quite some time now, it has been my considered opinion that computers, over the long haul, will do more for the cause of illiteracy than TV *ever* could hope to do — if for no other reason than the insidiousness of the computer. Television, you see, is bold in its proclamation of its mindnumbing abilities and effects, while computers lull people into a false sense of security by letting them think they are actually educating themselves.

Television is wonderfully simple, and marvelously pure: you turn it on, sit down to watch it, and become brain dead while plopped in front of it. Computers, on the other hand, require some sort of physical (*or at least conscious*) participation on the user’s behalf. Therein lies the trick.

New users, unfamiliar with the system, will read everything fastidiously, attempting to comprehend how this solid state electronic monster functions. More experienced users, on the other hand, will quickly tear into software packages, dispose of everything that doesn’t look like a floppy diskette, insert said floppy into their drive, boot it up and begin to “play.”

Instructions? Aren’t they some of the things that are included with the disk to help fill out the package? No one really expects anyone to *read* instructions. They are merely included so the company who produced the software in question can blow some of the budget on copywriters to pen the stuff (and jack up the retail price). After all, everyone knows how to boot a disk, and play a game. All shoot-’em-ups and text games work the same way . . . in shoot-’em-ups, you kill everything that moves, and get the hell out of the way. With text games, you simply have to know how (and when) to type “get,” “go north,” “examine,” and the like. Right?

Not quite.

While this column won’t necessarily address the how’s and why’s of particular games, I do hope that it will steer readers away from clunkers, and toward better quality games. To be perfectly honest, I am doing this more for myself than for everyone out there in Commodoreland. You see, I got *into* this industry by way of games, and that’s what I enjoy best. So this is just a way for me to pick up (and play) some really neat

games. I’m no Arnie Katz, but I have a pretty good feel for the field, and *some* idea of what makes for a good game. Thus, with no further ado, I’ll get into the latest batch of games that have crossed my desk:

From Epyx, (the folks who brought us **Fast Load**) come four new games, **Barbie**, **Hot Wheels**, **Impossible Mission**, and **G.I. Joe** — a fifth game, **Chipwits**, will be discussed in a future column. Of the four under our examining eye this time, only **Impossible Mission** is not a licensed product.

**Barbie** and **Hot Wheels** are obviously intended for younger users. Granted, seeking to enlighten and entertain children is a noble and monumental task, at best. Programmers must understand that games have to give the children something to do, or something else more interesting will draw their attention away from whatever message, lesson, or entertainment you offered them. In the “involve the child” category, Epyx has failed miserably with **Barbie**, and achieved only minimal success with **Hot Wheels**.

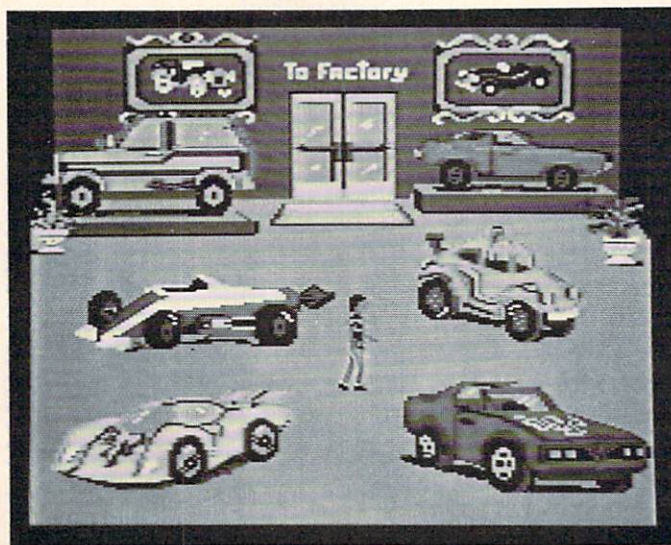
The object (if one can call it that) with **Barbie** seems to be to try and teach young girls the value of time (a noble and doomed effort, to be sure). The game revolves around Barbie and her long-time love, Ken. Ken calls for a date (to go play tennis / on a picnic / to the prom / swimming), and Barbie must then choose her outfit and return home inside an hour. Time is kept by an on-screen clock, and if she returns too soon or too late, Ken will call back informing her that plans have changed and they will do something different. Personally, I don’t know any female who can get ready to go out in less than two hours at the very least.

Once the time and location of the date are set, Barbie must drive the Miracle Mile, passing all types of shops in which she can alter her look from head to foot — including the style and color of her hair. As she enters each shop, she picks each item with the help of an on-screen hand. Assuming she is able to make it back to her house in time to greet Ken (not as easy as it sounds), the doorbell will ring, Ken will appear, and they will travel to the proper location (dance hall, beach, etc.). Not a whole lot happening here.



I have been assured by the people at Epyx that little girls *do* enjoy this game, and have great amounts of fun with it. I wonder. Personally, I would have allowed for both more options, and more variance in the gameplay. Barbie has only some half dozen items from which to choose in each category, and some items are totally ignored. For example, there are no hats, handbags, or coats; she can't mix or match skirts, slacks and tops; and she can't go skiing, to the movies, or out to dinner. Dull city, as far as I can see it.

Similar in concept, but with more options, is **Hot Wheels**. Here the user buys a new car (or builds one to suit), and drives it around town. While the parts available to build and paint a new car don't seem too different, mixing colors and painting a new car is fun. Around town, the user can wash his car, park it (and pick up a new one), tune it, change the oil, gas it up, and even help put out a fire.



There are actually two mini-games the user gets to play — one while changing the oil, and the other extinguishing the fire in a blazing building. In the first, you drive into the shop, get the car on the lift, and call for the attendant. The attendant then attempts to catch the oil in his drum as it drips from the car.

To become a firefighter, you must first pass the burning building (the house isn't always ablaze) and head for the firehouse. After switching to the firetruck and returning to the scene of the fire, you must then hook up to the fire plug and pump water into the blazing house. This requires both aim and speed — aim to reach the windows, and speed to put the fire out before the house burns to the ground.

The detail accomplished in the graphics of this game are some of the best I've ever seen, especially those offered while the gamer is driving down the highway. Here, the 3-D and motion effects are used very effectively. Three separate overlaid backgrounds moving at slightly off-sync speeds, greatly enhances the feel of the game. This, along with the two mini-games, make this the much better package. Why this many options were not included in **Barbie** is beyond me.

The third licensed game is **G.I. Joe**, and it is by far the best of the three. This one begins as a typical battle game between the G.I. Joe team and the evil forces of Cobra, save that you not only have the option of one- or two-player games, you also get to choose your hero (the computer chooses the villain), and type of battle (man-to-man, or armored vehicle).

In the armored car, your vehicle challenges Cobra installations and must destroy tanks, pillboxes, and missile sites. Man-to-man fights place your man in the desert or in a Cobra building against their foe. Should your commando be killed during the battle, a message will flash that Cobra will be victorious and rule the world.

## Clone Owners Most Requested Utilities for The Commodore. **FLOPPY DISK CONSTRUCTION SOFTWARE**

Now you can have a complete set of utilities that enhance your ability to get the most out of your computer.

**INCLUDES:** 1) Repair a Disk 2) Lock a Disk 3) File Finder 4) Un-New 5) Screen Dump 6) Unscratch a File 7) Drive Speed/Alignment Check 8) Machine Language Saver 9) Auto Boot Maker 10) Error Examiner

**Introductory Special \$21.95**

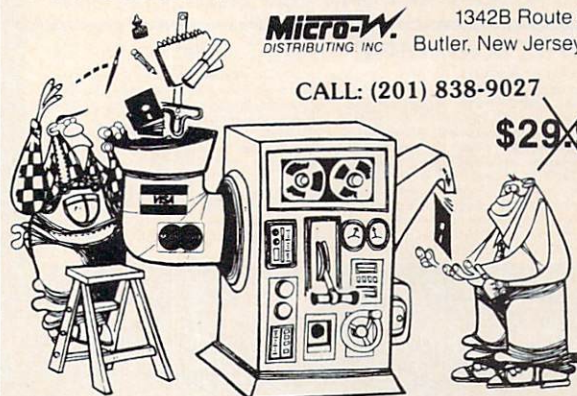
*It's The Best Friend Your Disk Drive Ever Had.*

**MICRO-W**  
DISTRIBUTING INC.

1342B Route 23  
Butler, New Jersey 07405

CALL: (201) 838-9027

~~\$29.95~~





In the event of your victory, Cobra, in true villainous fashion, will vow revenge.

The really fascinating aspect of this game is how enjoyable it really is — even for adults. Quite frankly, I've had my fill of mindless shoot-'em-ups. **G.I. Joe**, however, proved to be not only a good deal of fun, but also not as simple a game as one might expect. The addition of the two-player option allows the second player to assist the first during armored segments (i.e. one player controls the tank and the other turns the gun turret); in man-to-man segments, the second man controls the Cobra soldier.

The other major plus to the game is the variety of combinations from which to choose. Four different armored vehicles are available (tank, land rover, helicopter, or jet) and about half a dozen man-to-man options. The game also includes about a dozen different enemy soldiers.

To accommodate all of the different options, this is a two-sided disk. My only problem with **G.I. Joe** is the amount of time it takes to change modes. You would think that the people who designed **Fast Load** could have found a way to cut down on this time.

The last game we'll look at this time, is Epyx' **Impossible Mission**. Here, we have a lone operative who must track down the diabolical Professor Elvin Atombender. The professor has harnessed a rack of nuclear missiles, and is about to (you guessed it) destroy the world! It is up to you (naturally) to stop him.

One thing that sets this game apart from others is that there is no limit to the amount of lives your on-screen image has. Die once, or a dozen times. All you lose is points. Elvin's stronghold is fraught with perils, as each room contains both hidden clues, and deadly traps. Each room is constructed on many levels with elevators to transport you up and down. Your task is to discover the bits of Elvin's code, break it, and then disarm the missiles. Protecting the fortress is an army of robots who track you down upon your entering each room, and attempt to electrocute you.

Most interesting about this game is its manual. For those of you who don't read instructions, it would be well worth your while to make an exception this time, for this one is written with a certain amount of style and humor usually lacking in manuals. It comes in the form of an intelligence document, briefing you (the next agent up) on the current assignment.

Also novel about the game, is the voice-over at the beginning of the game. Professor Atombender's voice greets you, and welcomes you to your doom. Should you fail, his evil laugh rings out, and the building (and the world along with it) is decimated.

Again, even the best of games has a slight bug. With **Impossible Mission**, it is exactly that, a *slight* bug. For the life of me, I'll never understand why programmers insist on allowing for a top-ten score, but steadfastly refuse to permit it to be saved to disk. I really don't care what my score was this time in relation to my previous games, unless my last game was yesterday or last month. It's then that that high score really counts. Still, this is only minor, and in no way detracts from Epyx' fine product.

Well, that's all that is on the agenda for this time. Next time out, I'll be discussing a gaggle of new products from Activision. 'Til then, do a frustrated copywriter a favor and read the silly instructions. You might actually learn something about the game you're playing.

© 1985 by R. Sodaro. All rights reserved.

## ATI TAKES THE FRUSTRATIONS OUT OF USING YOUR COMPUTER BY PROVIDING YOU WITH QUALITY SOFTWARE AT AN AFFORDABLE PRICE.



### "BITS AND PIECES"™ — Disk Utilities \$29.95

• Sector Copy a Disk • Back-Up Copy "Whole Bit" Disk Series • Program or sequential file copy to disk & conversion of program files to sequential files • Check track and sector for errors • Examine contents of a file, block by block in HEX or ASCII • Modify contents of a block • Check whole disk for errors • Save Disk Utilities onto disk • SCREEN-DUMP Hi-Res Graphics and Characters to printer using any selected memory locations • MULTI-COLOR SPRITE MAKER • Quick program (Machine language or Basic) transfer to another disk • Provided on diskette in a plastic library case with instruction manual (for Commodore 64™, 1541 & MSD single & dual drive)

### "THE WHOLE BIT"™ — Word Processing \$24.95

• MENU-DRIVEN • 80 column view screen • On-line HELP Screens • Enhanced cursor movement • Supports major printers by Menu Selection • Ability to custom tailor print commands • Tab-setting 240 columns to screen • File copies printed in any sequence • Sequential page numbering from one file to another • Screen and character color selectable • Menu selection of disk files • Global search and/or replace • Block move/copy • File merge • Horizontal/vertical scrolling • Left, right, block justification • Sub/superscript • Block erase • Header/footer/page numbering • indentation • Search/replace defined phrases • Text Centering • and more . . .

• PROVIDED ON DISKETTE WITH USER'S MANUAL IN 3 RING BINDER (C-64) \$39.95  
• EXTENSIVE MANUAL ON DISK - FOR YOU TO PRINT OUT (C-64) ONLY \$24.95

### "FILE CONVERTER"™ — File Transfers \$39.95

• FILE CONVERTER: Allows the transfer of files between the popular data base programs; Manager™, Flexfile™, Superbase 64™, Practifile™, Silicon Office™, and others. Program, sequential, or relative files may be converted to a differing type including PET to ASCII or Screenpoke, and vice-versa. Will convert fixed or variable files. Files from any data base may be merged into "THE WHOLE BIT"™ word processing. • Allows the transfer of text files from one word processing program to another; undefined control codes can be ignored or deleted • FAST DATA BASE ENTRY: Creates a sequential data base file of up to 32 fields per record; a very fast data base entry program useful for entering large mailing lists, etc.; can be easily converted to your specific data base using "FILE CONVERTER" • READ RELATIVE: Allows viewing or printing of any selected relative file record (PET, ASCII or Screenpoke form) • Provided on diskette in a plastic library case with instruction manual (for Commodore 64 and PET series computers)

"U.S. Commodore User's Group  
Approved Programs"

MASTERCARD/VISA  
(207) 439-5074

Dealer & Distributor Inquires Invited

Applied Technologies, Inc.  
Computer Products Div.  
Lyndon Way  
Kittery, Maine 03904



# In Pursuit Of Trivia: A Game Roundup For The 64

by Alan Eisenberg

I am a trivia nut! Way back when the dinosaurs ruled the earth, we called it nostalgia. Call it what you may, it is *immensely* popular these days. Even when it was called History in school, it was never as popular as it is today.

My earliest experiences with trivia were as a member of the four-person trivia team for Portland State University, back in 1973. We placed fifth in a national competition. Pretty good, for a bunch of nuts!

Then came the advent of the personal computer, along with an appetizing selection of computer trivia games! It was only natural that my involvement with trivia should expand into my computer world, as well. Soon, the game of trivia evolved into one of the most popular of all games — often played from the children's bedtime until the wee hours of the morning!

My intent here is to review the trivia games that I have played. I believe each one has something unique to offer the players / teams, and I will try to point out those features.

Let's begin by making some general statements. Most commercial trivia games have anywhere from 2000 to 3500 questions on their data disks. Most can be classified into one of three categories:

1. **Fill-in** — where the individual, or team representative, types in the answers.
2. **Multiple choice** — where the individual, or team, selects the correct answer from choices on the screen.
3. **Oral** — where the individual, or team, gives the answer orally, after which a master then reveals the answer and uses the computer to score, handicap, etc.

Having armed you with this information, I am ready to share a partial listing of these games.

## Fill-In Type

### The Trivia Monster — by Cosmi

This is a trivia game that has two- to four-player capabilities. The question categories are: Science, History, Sports, The Arts, Show Biz,

and Grab Bag. After setting up the game, each player is given, in turn, a time limit in which to type the answers to questions generated on-screen.

Before you're through, you must answer three questions in each category, but you may pick the order of the categories, lending you the opportunity for a little strategy. For instance, you may choose to answer questions from categories you know the least about first, and save your favorite categories for a strong finish. A typical game takes over a half an hour to play, and the questions range from easy to difficult.

A unique feature of this particular game is that your wrong answers produce a monster that escapes from jail and wisks you away into oblivion! Also unusual: when you purchase this game, you get both disk *and* cassette, so owners of either can play the game.

### Trivia Data Base — by SAMS Books

This is a dual purpose item. Not only does it give you a trivia game, but it also allows you to edit your own trivia games based on other games, current events, or local history. It comes with *both* disk and cassette, so you do not have to specify your medium. It also comes with a 123-page book, outlining the programs and source codes in BASIC, so you can modify the game for your own needs. One to four players can play this game and it is all menu-driven and easy to use.

### Cymbal Software Series

The last series of trivia fill-in type games is the Cymbal Series games. All of these games have a choice of point spread to end the game, a time limit, and can have one to six players / teams. Each person can sit down at the computer and type in the answer, without worrying about the next question popping up. You must press the space bar to see the next question, giving all teams time to rotate without hurrying!

The first is called **Trivia 1**, and operates as mentioned above. Two disks are included, divided into two parts each, giving you four different places at which to start the game. The computer



randomly selects the number of points to be awarded for correct answers; points range from three points for most questions, to 10 points maximum. Partial credit is given for misspellings. However, I will mention that some of the answers are misspelled! The questions range from medium to difficult.

**Master Trivia** is a series of games, that can integrate with one another. They all operate in the above manner and can be loaded together from the **Master Trivia** disk, or played individually by subject matter. The disks include Master Trivia, World Facts Trivia, Sports Trivia, Entertainment Trivia and General Trivia. Again, you can pick your game length, answer time, and have up to six players.

The last Cymbal trivia game is **Entertainment Tonight Trivia**. This is another fill-in type game, but differs from the other Cymbal Games in that the object of game is to be the first player to fill in the letters T-R-I-V-I-A. You can accomplish this by earning one letter at a time, or, one-third letter at a time, if you wish to play a longer game. The letter you are trying to fill is chosen at random by the computer. If the computer chooses a letter that is already filled, you must answer the question before the computer will choose another. You keep answering questions until you miss, then your turn ends. Questions range from medium to difficult. This can be a long game, depending on how knowledgeable and how evenly matched the players are.

### Multiple Choice

#### **PQ-The Party Quiz** — by Suncom

This game is different from all others that will be mentioned. First, there is a set of special controllers that plugs into your joystick ports to operate the responses. Then, the four players / teams can sit away from the computer and still play the game. After deciding the set-up, the game length, and the response time, you are ready to begin.

There are two modes of play — social and competitive. In the social mode, everyone can gain points by answering the questions. The sooner you answer the question, the more points you are awarded. In the competitive mode, however, only the first one answering gets the points.

This is a fast-paced game, with one lightning round per player per every five rounds of play. The unique controllers make this trivia

game different from any other you will find on the market.

Each game set comes with special controllers, program disk, and data disk. Optional data disks are available at a nominal cost!

#### **FAX** — by Epyx

One or two people can play this game. Questions range from easy to medium and are available in four subject categories: Entertainment, History, Sports, and Grab Bag. Only one subject can be accessed at a time.

If two people play at the same time, keyboard control is a little difficult, since the second player uses keys 7 through 0 to answer the questions.

Timing is again important here. The more points accumulated before time runs out, the bigger the bonus rounds.

I found this game excellent as a solo game, as a learning tool, and for beginning trivia fans.

#### **The Trivia Arcade** — by Screenplay

This is another unique game, offering both the mind-probing questions of trivia with a fast-paced arcade game! It attempts to satisfy everyone. If you don't wish to play the arcade portion of the game, it will allow you to play a straight multiple choice trivia game. Again, one to four people can play this game.

In the arcade game, you attempt to pick your subjects by shooting five symbols representing Sports, TV, Music, Science, or General Knowledge. After picking the categories, you then try to spell out R-I-V-I-A from your "T" starting position on the game board. Letters are randomly placed on the board by the program. To add strategy, you can block your opponent by capturing a letter and turning it into one for you. Once you have completed the spelling on the board, you must answer one question in each category to win the game.

You have the option of having the computer display the correct answer on the screen, or just tell you that you are wrong without displaying an answer. Another option of the game allows you to input the answer, rather than making it multiple choice.

#### **Trivia Trek** — by MMG Micro Software

This is a multiple choice trivia quiz that one or two players can play. You may use either the keyboard or a joystick to select the answers. Fifty subjects are on the data disk, and other data disks



are available. You may pick your subject category, or have the computer choose it for you. The game also has an edit function to create your *own* categories, with ten questions to a category. You tell the computer which is the right answer during the input, and the computer will generate the four multiple choice answers (including the right one) in random order. Again, fifty of your own categories are able to fit on your disk.

### Oral / Vocal Answers

**Trivia Challenge** — by Delta Software

**Trivia Plus** — by Academy Software

These two games are identical. The questions appear to be different, but both interact the same. They have seven subject categories, including: History and Politics, Humanities, Sports and Games, Movies, Science, Television, and General Knowledge.

These games are different from all others I have played, in that the humanities section has a repertoire of songs to play and identify! Although the sound is simple, more trivia games should use the sound chip for this feature.

Each of these games has a timing option, a challenge option, and a choice of input device (keyboard or joystick). Up to six people can play these games, but only one can challenge at a time. You need a game master or a player that will act as game master, since the answers are spoken.

**Trivia 64** — distributed by Artworx

This is a gameboard type game, the closest emulation yet to *Trivial Pursuit*. As a matter of fact, it is even made in Canada. There are six categories, Geography, History, Sports and Leisure, Arts and Literature, Entertainment, and Science and Recreation. Sound familiar? Two to four players may play. The object is to collect your tokens in all categories to win. Only six spaces yield a token, so you may answer several questions before being lucky enough to land on a space that yields the token. Answers are given vocally and then scored by a game master or player. Questions are the same difficulty as in *Trivial Pursuit*!

**Word Of Mouth Trivia** — by Dilithium Press

You get two disks with this game, a program disk and data disk. The game has three difficulty levels, ranging from medium to extremeley hard. You have the option of taking a beginning quiz to

see where you should start. Up to six people can play in this game. Timing of questions is selected by the players before play begins. Games can be ended one of three ways — by score, time, or misses.

If you really want a hard trivia game, this is the one. I played some games with my “drillmaster” (a local expert on our trivia team). We played for over an hour at the hardest level, before we both gave up!

**TRIVIA FEVER** — by Professional Software

What can I say about this that has not already been said, both here in *The Guide*, and other places? This is probably the premiere game of trivia. Up to eight individuals / teams can play.

Questions range from easy to difficult, with most in the medium range. The categories are Science and Technology, Geography, History, Sports, Famous People, Films and Entertainment, and Nature and Animals. Additional data disks are also available.

You have a handicap option, a timing option, and many other fine features. You also have the option of not using the computer at all. You can set up the game so you must answer several questions, or just one question, in five of seven categories that you choose. You then answer a category completion question, and when you are about to win, you answer one grand final question.

This game allows you to make an evening of trivia, especially if you pick the longer options.

### Summary

There are a lot more, newer trivia games just entering the market. I will review these in future issues of *The Guide*, as they become available. All trivia games have something to offer, and if you are a trivia nut (like me), you will want to get them all, just to bone up on trivia for tournaments, etc.



“All education is a continuous dialogue — questions and answers that pursue every problem to the horizon. That is the essence of academic freedom.”

William O. Douglas



# EA Releases Package Of Early Classics

by Valerie Jean Kramer

## Life

In October, 1970, I was a junior computer science student at Michigan State University. One of my favorite magazines was Scientific American and my favorite column in it was Martin Gardner's math games column. The October column really captured my imagination. In that column, John Horton Conway's game of **Life** was "born". This game of **Life** has nothing to do with the board game by Milton Bradley, or with the cereal. It is played on a grid resembling a chessboard. Each square is either "alive" or not.

Initially, you set some pattern of squares (or cells) to be alive and the rest are not. You then let the rules of the game take over while you sit back and watch. There are only four rules:

1. If an alive cell has 0, or 1 of the eight surrounding cells alive, then that cell dies of isolation.
2. If an alive cell has four or more neighbors, it will then die of overpopulation.
3. If a cell has two or three neighbors, it will remain alive.
4. If a non-alive cell has exactly three neighbors, it is a "birth" cell and will become alive.

The rules are applied to all cells simultaneously so that the patterns appear in "generations".

I was fascinated by the patterns that could spring to life, grow, and die as I applied the rules to patterns drawn on graph paper. Being a lazy computer science student, I realized that I could have a good deal more fun if I let the computer do the work for me. All I needed was an account number and a password.

Fortunately, my math professor was also interested in the project. I hate to say how many dollars I ran up on his account submitting card decks of FORTRAN programs. I never made any Earth-shaking discoveries, but I convinced myself that the "game" must have some practical application — although I didn't know just *what*.

My professor contended that it was an example of "pure" mathematics and had no practical application. Just last year, I finally read where some social scientists had been able to use **Life** (with slightly altered rules) to study the population dynamics of integration. In their game, cells

STARPOINT SOFTWARE proudly presents

# ISEPIC

□+□+□+□+□+□+□+□=□

[say Icepick], a revolutionary new concept in software de-protection for the Commodore 64. ISEPIC is not a disk duplication system, but an extraordinary hardware/software combination that actually bypasses any disk protection scheme. ISEPIC captures and saves the protected program as it runs in the 64's memory, this "snapshot" becomes accessible to the user for complete inspection and alteration. From this image, ISEPIC can automatically create a compact, auto-booting, fast-loading file which is completely unprotected and self contained.

- ☆ Copies ALL memory-resident software
- ☆ ISEPIC'd programs load many times faster than originals
- ☆ ISEPIC is invisible to software—cannot be defeated
- ☆ Eliminates drive "knock" due to antique protection schemes—adds years of life to your drive
- ☆ Automatically "cracks" protected programs into single, auto-booting, super-fast loading files
- ☆ Place multiple programs on a single diskette
- ☆ Create auto-booting, fast-loading versions of your own programs
- ☆ Cracked programs are completely self-contained and run independently of the ISEPIC adapter
- ☆ Copies software with a flick of a switch
- ☆ ISEPIC comes complete and ready-to-run, just plug into expansion port
- ☆ Programs cracked by ISEPIC may be used on MSD or 4040 drives as well as hard disks regardless of original protection schemes

When ordering by mail:

- \* \$64.95 + 3.00 shipping
- \* \$64.95 + 4.00 COD orders
- \* Calif. residents add 6% sales tax
- \* VISA or Mastercard accepted
- \* Shipping out of USA \$6.00

Please allow 4-6 weeks for delivery.

... WRITE OR PHONE ...  
**STARPOINT SOFTWARE**  
 Star Route 10      Gazelle, CA 96034      [916] 435-2371



could be alive in either of two (or more) colors. I won't give the details, but, Dr. H, if you are reading this, *I told you so!*

The game of **Life** in Golden Oldies faithfully reproduces the original rules as given in Martin Gardner's column. There are several pre-defined patterns of interest, or you can easily enter your own pattern. You can also save, re-load, or modify your own patterns. If you just want to "zen out", you can watch the life cycle of a random pattern.

High and low resolution modes are available, though neither uses the full capabilities of the 64. High-res is a poor 48 "x" 80 while low-res is 24 "x" 80. This is disappointing since the grid space available is of great importance.

The program is not usable for the population studies mentioned above because colors are used only to indicate the generation in which a cell was born, and does not reflect the "genes" of its parents. Still, this is a nice introductory game of **Life**. It runs fast and is easy to use.

## Adventure

About 1974 or 1975, the National Computer Conference was held in Anaheim California, and I was able to spend a day exploring the exhibits. Buried on the convention floor, running on one of Digital Equipment Corp.'s minicomputers, I first found myself standing at the end of a road before a small brick building. They were demonstrating their computer by having the visitors play **Adventure**!

I would have liked nothing better than to spend the rest of the day playing — but, alas, I was there on business. It was too late, though, I was hooked. Instead of being at the end of a road, I was at the beginning of a road paved with ever more powerful microcomputers.

The thought of playing **Adventure** on my own computer played a large part in my purchase of an Altair 8800 computer when they first became available. I never did get **Adventure** running on my Altair, but I didn't give up the dream. When the TI-99 became affordable and had adventure games available, I got back into microcomputing. Naturally, I have adventure games for my C-128, VIC 20, and Compaq Deskpro. What good is a computer without an adventure game? If only I could spend more time in their company!

**Adventure** on the Golden Oldies disk is the real, original **Adventure**, as written by Crowther

and Woods. Their original code was translated for the 64 giving as authentic a version as possible. What more could you want? xyzyzy.

## Eliza

Even though I didn't get **Adventure** running on my Altair, by 1976 I had **Eliza** running! **Eliza** was written by Joseph Weizenbaum at MIT in 1966 in the SLIP programming language. Its importance may be seen by the fact that *The Handbook Of Artificial Intelligence* devotes three minor and one major references to the program.

Though **Eliza** is one of the better known examples of artificial intelligence, it isn't really intelligent. It merely looks at the sentences typed by the user and identifies certain key words. It then reformats the sentence and parrots back to the user the facts just entered. If **Eliza** can't make sense of a sentence, it may respond with some non-committal statement like "I see." It is interesting to observe **Eliza** in operation. The program gives the appearance of being much smarter than it really is.

Because of BASIC's string handling

# COMP-U-TEMP™

ATARI 800/XL, 130XE, & COMMODORE 64



## TEMPERATURE MONITORING AND DATA ACQUISITION SYSTEM

**FEATURES** include display of 8 or 16 temperature channels, range of -15°F to +180°F at approx. 1 degree resolution, electronic interface plugs directly into the joystick port, weather-protected sensors, menu-driven software capable of (1) labeling sensor locations (2) selecting high or low alarm set points (3) hardcopy printouts (4) selection of data sample time intervals for all channels (15 seconds to 4 hours) (5) recording temperature data to disk (optional).

**VERSION 1.0 8 Channel** ..... \$89.95  
Includes 2 sensors, software, electronic interface, and hard copy

**VERSION 2.0 8 Channel** ..... \$109.95  
Includes 2 sensors, software, electronic interface, hard copy, and data storage to and from disk

**VERSION 3.0 16 Channel** ..... \$179.95  
Includes 4 sensors, software, electronic interface, hard copy, and data storage to and from disk

**Additional sensors (Each)** ..... \$5.75

**ATI** Applied Technologies, Inc.  
Computer Products Div.  
Lyndon Way, Kittery, ME 03904

M/C - VISA accepted (207) 439-5074  
Dealer & Distributor Inquiries Invited



capabilities, **Eliza** was quickly converted to BASIC. By 1975, BASIC versions of the program were widespread. The version of **Eliza** on the Golden Oldies disk is an attempt to recapture the original program faithfully and completely. Although I have always assumed **Eliza** to be male, Golden Oldies has made the program female. I guess with computers it doesn't really matter. In any event, **Eliza** can be a lot of fun — especially at parties. Just don't take him, er, her too seriously.

## Pong

The difference between video games and computers has been growing smaller and smaller the last few years. Somehow, **Pong** seems to fit with the other programs on this disk. **Pong** was "born" a seminal work that captured the public's imagination and launched an entire industry. Yes, *definitely* — **Pong** fits.

There are actually *two* **Pong** games on the disk. There is a replica of the original black and white game which reproduces the original as closely as possible. There is also a more modern version which makes use of color. Both games are operated from the keyboard and use neither joysticks nor paddles.

## Summary

The four programs collected on this disk are *true classics*. The implementations are well-done, and capture the flavor of the original versions as nearly as possible (which is *very* near, indeed!). The package sells for \$29.95, and is distributed

by Electronic Arts. If you don't already have these in your library, this is a good chance to add all four of them at once.

© 1985 by V. Kramer. All rights reserved.

# Counter Point:

by Randy Chase

I simply can't resist offering a few additional comments. For those of you who are new to the Commodore world, Valerie's article may have provided you an introduction to some of the classics of early software.

There are two things that I feel should be said, however. First of all, the *classics* Valerie discusses are all available in the Public Domain, and are most likely in your local users group library. Even with enhancements, I can't imagine paying \$30 for a *pong* game! Come on guys! Surely an industry leader like Electronic Arts has something more competitive to release than dredging through the public domain library for recycled "classics".

The other thing that crossed my mind was amusement at the mere concept of "golden oldies" in an industry still in diapers! Most Commodore owners have had their computers for two years or less (the old timers who have been involved longer than that are in reality a very small minority compared to the masses who joined ranks when the price on the 64 dropped below \$200). And can a consumer base with a past that brief really be ready yet for "greatest hit" packages of relics of nostalgia? Maybe in ten years, the nostalgic value of owning a *pong* game would make this a successful novelty item on the market. But I think that those who remember the days when these games were "in" would prefer to not be bothered with them, and most likely have many versions lost in the darker reaches of some dusty flip-n-file. And the newer user who isn't familiar with them could surely find some better value on the market for their \$30 software investment. Sorry, E A, but I just can't see the rationale of the company that gave us **One on One** and **Seven Cities of Gold** wasting their time and the consumers money on this over-priced package of public domain relics.

# DISKS - 69c



**Foolish to pay more.  
Dangerous to pay less.**

- QUALITY MEDIA
- LIFETIME REPLACEMENT GUARANTEE
- HUB RINGS • TYVEC EPS.
- WRITE PROTECTS

	1-100	101+
5.25" SSDD	.79	.69
5.25" DSDD	.89	.79
PC FORMATTED	1.09	.99
AT 1.2MB/3.5 1D (Mac)	1.99	CALL

Add \$3.00 shipping and handling per 100 Diskettes. COD add \$1.95.  
(CA residents add 6.5% sales tax)  
VISA/MC/COD

P.O. Box 883362  
San Francisco, CA 94188  
In California 415-550-0512  
USA orders **800-431-6249**  
In Canada 403-428-6229

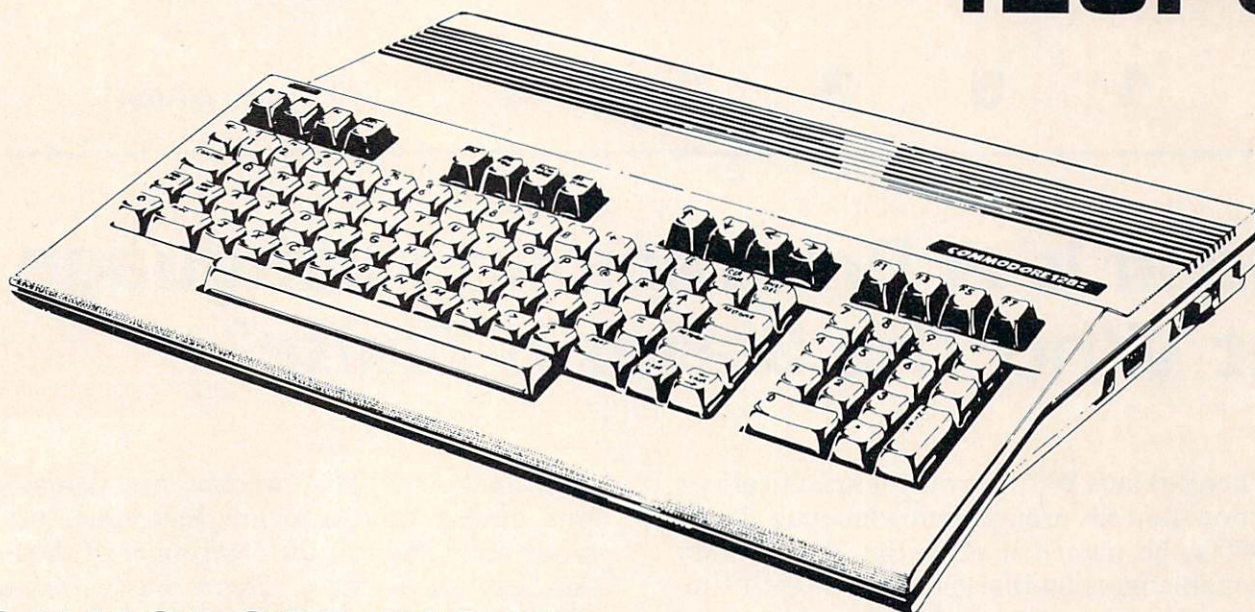


**BLACKSHIP**  
COMPUTER SUPPLY



# **commodore**

## **128PC**



## **COMMODORE 128PC**

The new Commodore 128PC is a computer breakthrough with all the power of its competition at half the price! Features 128K RAM for advanced applications and increased productivity, user selectable 40 / 80 column full color display, numeric key pad to increase data entry efficiency and accuracy, user expandable to 512K for rapid data access with RAM disk expansion modules. 100% compatible with Commodore 64 software and peripherals and most off-the-shelf CP/M software.

Available soon at the following dealers:

Computron  
1139 SW 11th Ave  
Portland, OR

Users Corner  
1133 S Riverside  
Medford, OR

Software Express  
21914 NE 112th  
Battleground, WA

Computron  
11705 SW Pacific Hwy  
Tigard, OR

Tumwater Video  
5109 Capital Bv  
Tumwater, WA

Com-Soft  
1831 Silver Lake Rd  
Everett, WA

Computers Etc.  
1513 NE 122nd Ave  
Portland, OR

Computers Plus  
2504 Jefferson  
Tacoma, WA

Royal Mobile Sound  
613 SE Emigrant  
Pendleton, OR

Computer Mart  
2700 NE Andresen Rd  
Vancouver, WA

Micro-Plus  
823 W Main  
Sumner, WA

Soft Line  
1700 Hwy 160  
Port Orchard, WA

Computron  
1142 Willagillespie Rd  
Eugene, OR

Computer Software Whse  
25234 Pacific Hwy  
Kent, WA

Computer Communications  
17602 Hwy 99  
Linwood, WA

Computron  
64 W Nob Hill  
Yakima, WA

Programmers Plus  
16850 S Center Pkwy  
Tukwila, WA

Colville Computers  
136 E 4th  
Colville, WA



When Niklaus Wirth wrote the specifications for his now-famous programming language in the late 1960's, he named it after the 17th century French mathematician Blaise Pascal. Why? I suppose the only real answer to that question resides in the mind of Mr. Wirth, but if we take a brief look at who Pascal was, maybe we can conjecture our own guess.

Blaise Pascal was born in Clermont, France on June 19, 1623. His father, Etienne, was president of the court of aids in Clermont and was a tax assessor. He had two sisters, Gilberte and Jacqueline; his mother, Antoinette, died when he was four. The family moved to Paris when Pascal was eight.

mathematician. This weekly discussion group was named the Academy Mersenne, after its moderator, and was the forerunner of the French Academy of Sciences. There, Pascal would rub elbows with some of the great mathematicians of the time including Girard Desargues (projective geometry) and Pierre de Fermat (number theory, calculus, probability).

Pascal's precociousness was not confined to mathematics; he was great in many other fields as well. He became a master of French literature and his *Pensees* and *Lettres Provinciales* are considered to be French literary classics. He did some important work in science, building on the results of Galileo and Toricelli on barometric pressure. He was considered to be a great polemicist in theology and in fact spent much of his time attempting to reconcile faith with rationalism. At the age of 18, he invented the world's first computer! (Could this be the answer to our question?) It was a revolving number wheel device used to take some of the drudgery out of the arithmetical chores his father encountered in his job as a tax assessor. He was quite proud of his invention and at one time, offered it to Queen Christina of Sweden. What she did with the device is not known.

Pascal did original work in many areas of mathematics, including projective geometry and calculus, but he is most noted for being one of the co-founders (with Fermat) of the theory of probability. Through intensely interesting correspondence in 1654, Pascal and Fermat



```

BEGIN                                     (*
Main program; computes nine *)
PAGE; BORDER(5); SCREEN(1); PEN(6); (*
rows of Pascal's Triangle. *)
FOR n:=0 TO 8 DO
  BEGIN
    FOR r:=0 TO n DO WRITE(pascal(n,r)
:4);
    WRITELN
  END;
  WHILE GETKEY = CHR(0) DO;
END.

```

*[Editor's Note:*

Carmen is using some non-standard features unique to Oxford Pascal. For those of you with KMMM Pascal, a bit of translation is in order. PAGE is a procedure found in most Pascals, but not in KMMM. PAGE is here used to clear the screen.

Write (CHR(147));

will do the same thing in KMMM.

BORDER, SCREEN and PEN seem to be an import from LOGO. To set the

border color, screen color and character color, the following code will do the job in KMMM:

MEM[53280] := 5; (\* Border color to green \*)

MEM[53281] := 1; (\* Screen color to white \*)

MEM[646] := 6; (\* Character color to blue \*)

This is KMMM's equivalent to BASIC's POKE.

— Tech-Ed.]

The author welcomes comments and suggestions concerning this column. The interested reader may write to the author at:

Mr. Carmen Artino  
P.O. Box 43  
Guilderland, NY 12084

© 1985 by C. Artino. All rights reserved.

## We're your Software Connection !

We Have Software For...

### Commodore Atari

Total Modem.....\$ 42.95  
Mach 5..... 28.95  
Diskettes..... .89  
Copy II 64..... 37.95  
Mirror Disk Copier..... 24.95  
CSM 1541 Disk Drive Alignment..... 39.95

### Apple IBM PC

Fast Load..... 28.95  
Star SG-10 Printer.....265.00  
Panasonic 1091.....285.00  
Print Shop..... 35.95  
Music Shop..... 35.95  
39.95

★ Software Preview Option ..... **Only \$3<sup>99</sup>** For Three Days!

We Will Special Order **Any Software** For Almost Any Computer

WE'RE YOUR

# SOFTWARE CONNECTION

Hours: Monday thru Friday.....10-8  
Saturday.....10-5  
Sunday.....12-5



10227 N.E. Clackamas St. Across from Gateway Shopping Center  
Portland, Oregon 97220 (503) 253-9588



to get row six, we copy down the 1's as indicated. The number after the leading 1 would then be six ( $1 + 5$ ) followed by 15 ( $5 + 10$ ), then 20 ( $10 + 10$ ), then 15 again ( $10 + 5$ ), then 6 ( $5 + 1$ ), then the trailing 1. Thus, row six is:

1   6   15   20   15   6   1

Try to construct row seven — you should get:

1   7   21   35   35   21   7   1

Now we see that each row has one more entry than the row number; for example, row four has five entries, row seven has eight entries, etc. If we label the entries starting with zero, then the last entry in each row will be the row number. For example, in row four, the first 1 is the “zeroth” entry, the first four is the first entry, the six is the second entry, etc. The last 1 would then be the fourth entry. This scheme is used for every row, so that, for example, the last 1 in row 22 will be the 22nd entry.

Now, the triangle has the following property: If I wish to know the possible number of arrangements of, for example, six objects, using only two at a time, then all I need do is look in row six, position two of the triangle. There, we find the entry 15, so there are 15 such arrangements. The arrangements are to be made without regard for order as when one is dealt a hand of cards in a card game. Such arrangements are called *combinations*.

For the poker hand example mentioned above, we would look in row 52, entry five to find the number of five-card poker hands that can be made using 52 cards. To determine the number of five-card hands that consist only of spades, look in row 13 (there are 13 spades in a deck), entry 5.

If we go back to the problem of the four coins; that is, if we wish to determine the number of outcomes that consist of two H's in a toss of four fair coins, we need only look at the second entry in row four of Pascal's Triangle. There we see a six, so there are six such outcomes! What of the number of possible outcomes in this case? Simply add the numbers in row four; the result is 16.

Which brings us to another interesting property of the triangle. *The sum of the entries in any row is always a power of two — and the power is the row number!* The sum of the numbers in row four is two to the fourth power, or 16; in row five, the sum is two to the fifth

power, or 32, etc. Try it! — It always works! Another quite useful property of the triangle is its *recursive* nature. By this we mean, as already demonstrated, that the next row of the triangle depends on the previously constructed row. (After the first two rows, of course. Any recursive property has to have a starting point.)

Yet another interesting property is the fact that, given any row, you can go only half-way into the row before you encounter the same numbers on the way out!

There are many other interesting properties of the triangle; I'll mention only one other. If we think of the entries in any row as a number; for example, think of row three as the number 1,331 or row 4 as the number 14,641, then each of these numbers is a power of 11. The number 1,331 = 11 to the third power, 14,641 = 11 to the fourth power, etc. (Try 11 to fifth power for an exercise in frustration — there is a solution!)

I would like to finish with a program (written in Pascal, of course) that can be used to generate a portion of Pascal's Triangle. The interesting part of the program is the FUNCTION “pascal”, which computes the entry in a given row at a given position in that row.

Notice that this FUNCTION makes use of the recursive nature of the triangle as indicated above; that is, the FUNCTION calls itself. Notice also that there is no conflict in using “n” and “r” as the names of INTEGER variables in the main program as well as in the FUNCTION, a nice feature of Pascal the language.

The program prints a form of the triangle on the screen. Although its appearance is not as given above, it can be easily modified to appear in that way. You can even modify the program to produce the triangle on your printer.

Lastly, the program was written and run using the Oxford Pascal compiler on a Commodore 64 (see my review of this product in the March / April, 1985 issue of *The Guide*).

```
PROGRAM triangle(INPUT,OUTPUT);
VAR n,r:INTEGER;
FUNCTION pascal(n,r:INTEGER):INTEGER; (*
  Computes the entry in row n, *)
BEGIN
  position r of the triangle. *)
  IF (n=r) OR (r=0) THEN pascal := 1
  ELSE pascal := pascal(n-1, r-1) + pascal(n-1, r)
END;
```



developed the fundamental principles of this rather pervasive branch of mathematics. Their respective solutions to problems which arose in connection with the development of the subject differed only in detail, not in fundamentals.

Pascal died of convulsions in 1662 at the age of 39. The post-mortem revealed the obvious concerning his stomach, a consequence of his lifelong bout with dyspepsia. It also showed that he had had a serious lesion in his brain. Despite all this, Pascal did some remarkable work in mathematics, science, and literature. We should, perhaps, thank Mr. Wirth for making Pascal's name so well-known to all of us.

In the more elementary parts of the probability theory, we can often determine the probability that an event will occur by using some simple counting techniques. For example, we say that the probability of obtaining "heads" in the toss of a fair coin is  $\frac{1}{2}$  because, we reason, there are two possible outcomes — "heads" and "tails" — of which "heads" is one. Thus, the probability becomes one in two, or  $\frac{1}{2}$ . For the same reason, the probability of obtaining "tails" is also  $\frac{1}{2}$ .

This example may seem somewhat trivial, but what if we wish to determine the probability of obtaining two "heads" in the toss of four fair coins? (It's *not*  $\frac{1}{2}$ ).

We reason in much the same way. When four coins are tossed, there are 16 possible outcomes! You can list them, if you wish, by using **H** for "heads" and **T** for "tails", like so: **HHHH** indicates all "heads" were obtained, **HHHT** indicates that the first three coins showed **H** and the last a **T**; **HHTH**, **HTHH**, **THHH**, **HHTT**, **HTHT**, etc. If you have trouble convincing yourself that **HHHT** is different from **HHTH**, think of the four coins as being different, say a penny, a nickel, a dime, and a quarter. Then **HHHT** means **H**'s on the penny, nickel, and dime, while the quarter showed a **T**. Now, of these 16 outcomes, only six result in exactly two **H**'s showing so the probability is  $\frac{6}{16}$ , or  $\frac{3}{8}$ .

The problem gets more tedious (not more complex) if we try to determine the probability of obtaining, say, a spade flush in a five-card poker hand. We would first have to determine the total number of possible five-card poker hands (2,598,960). Then, of those, we must determine the number that consist of all spades (1287); the probability is .0005!

To determine the number of results or outcomes that can occur in situations like this, Pascal made use of the triangular array of numbers that appears in the logo of this column. While this device was known before Pascal's time, it has come to be called Pascal's Triangle because of the rather clever uses he put it to in probability. The triangle is constructed as follows:

Row 0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
-------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notice that the rows are numbered from zero, not one — this is in keeping with standard practice in computer science. Next, the numbers in any row after the first two are obtained from the row above by writing down the beginning and ending 1's, then adding together the successive pairs of numbers from left to right. For example,

## The Komputer Kover-Alls Co.

Presents . . .

### A NEW LOOK

In Computer & Video  
Dust Covers

- Stylish Upholstery Fabrics
- Custom Made
- Form Fitting
- Scotchguarded for Double Protection

It is VERY IMPORTANT to keep your video, computer and peripherals protected from everyday dust and accidental spills.

Our covers will not only protect . . . they also add a touch of warmth to any room.

Computers — \$7.00\*

Videos — \$10.00\*

Printers — \$9.00-\$13.00\*

\* Add \$1.50 shipping and handling

#### Colors:

- |              |         |                 |
|--------------|---------|-----------------|
| #1 Brown     | #4 Rust | #7 Red          |
| #2 Gold      | #5 Tan  | #8 Other colors |
| #3 Dark Rust | #6 Gray | upon request.   |

To Order, Call: 663-6276 or 668-9618

Or Write:

**The Komputer Kover-Alls Co.**

33770 S.E. Bluff Road  
Boring, OR 97009

Please state make, model and color.

If you would like fabric samples, please send your name and address, along with 50¢ for postage and handling, to the above address.

Satisfaction Guaranteed or Your Money Back!



# Productivity On The 64:

## *Big Software For A Little Computer*

by Randy Chase

When someone mentions "business computers" we all know what they are talking about. They are definitely talking about something expensive. And it's surely large and intimidating. User friendly? You gotta be kidding! Then, of course, we also assume that those magical initials IBM must somehow be involved. Right? Not necessarily. With the right software, the *real* world might be quite surprised to discover what some of us are doing with our "Toy Store" computers.

Many of you remember the long empty winter of *NO* software for our 64's, and most probably remember visiting the computer stores and being told that it was unlikely that there would *ever* be any software. Fortunately, they were wrong, and we now enjoy the benefits of one of the most diversified and affordable software bases ever offered for a personal computer. The one area which has been somewhat slow to evolve is that of serious business application software. I've often wondered what would have happened if the price of the 64 had stayed at \$595. Would the software industry have been more responsive to the potentials of the 64?

While it was slow in coming, in the last few months we have finally begun to see some very serious software being released for the 64. (It's somewhat ironic that the timing of these releases comes so closely to the release of the 128 PC, which is slated to slowly replace the 64.) The first major breakthrough was Precision Software's release of **Superbase 64**. Many people were quick to realize that with the programming capabilities offered by **Superbase** there was suddenly very little that wasn't possible on a 64 (providing, of course, that you are willing live with the physical limitations designed into the 1541 disk drive). A good friend of mine who is very involved in the IBM world was over one evening recently, and picked up my **Superbase** manual. You have to understand that, while he was tolerant of my little "toy" computer, he never really considered it to be a *real* computer. As he thumbed through the manual, he casually asked, "What computer does this run on?" His eyes roamed the room, check-

ing the various machines to see if I'd snuck in a non-Commodore system since his last visit. "You can really do *all* of this on *your* machine?" Suddenly, in his eyes, I graduated up into the "real" computer world.

I use that story because it so clearly exemplifies the stereotyped attitude so many people have towards the Commodore 64. If the software industry had better supported the machine early with the caliber of software we're just beginning to see, perhaps the *little* 64 would have been better utilized as a *little* business computer. The reality is that there are an awful lot of people out there that still don't realize just how capable the 64 can be in many productive environments. And there are also a lot of people that never listened when they were told that it *wasn't* a business machine, and have been doing a wide variety of different kinds of *productive* computing, usually using software that only scratched the application potential of their Commodores.

*The Guide* began what sometimes seems like years ago as an attempt to show the world (or perhaps my wife) that I could indeed do something productive with this marvelous new toy. I've stumbled through a variety of software packages along the way that did or didn't help things run a little more smoothly. With time, I've slowly pieced together an assortment of software that seems most able to handle my particular needs quite adequately on the 64. Obviously, I use my word processor a *great* deal, and don't really need to launch into another narrative on the features of **PaperClip**. Likewise, **Superbase** has been more than adequately covered in the past.

The other three pieces of software that I've found to be indispensable are **SuperShipper 64** from Progressive Peripherals, and **Accounts Receivable Management** and **General Ledger**, both from B.E.S.T. The receivable package I reviewed in the March / April, 1985, issue of *The Guide*. **SuperShipper 64** and **General Ledger** are both prime examples of what is possible when serious and professional developers decide to take the 64 seriously and generate some truly pro-



fessional applications.

Many small businesses fall into the category of being too small to afford a computer, but big enough to realize the need for the efficiency offered by computerizing repetitive aspects of their business. Many of those same small businesses would probably find that utilizing the right combination of software they could solve many of those "big" computer problems with the most affordable "little" computer on the market. **SuperShipper 64**, from Progressive Peripherals, is a very fine example of big computer power on your little old reliable 64.

**SuperShipper 64** is an invoicing package that is designed to handle the entire invoicing procedures for small to not-so-small businesses. **SuperShipper 64** is completely menu driven, and was designed in an open-ended fashion that allows the user a long-range capacity that is almost staggering for a \$149 computer. Each Invoice Disk records 500 invoices, and also contains a 200 item product file. For those who require a larger number of products, there's the option of using a separate Product Disk with a capacity of handling 2,000 products. Account Disks store customer information for 800 clients, and, as with the Invoice Disk, when one is full, the system not only prepares the next disk for you, but also it is always aware of how many different disks have been utilized by the system. It even tracks the date when you back up the various disks, and then reminds you if you've been careless about keeping your back-ups current.

There are some short-comings in **SuperShipper 64**, but they are far out-weighted by the power and versatility of the program. One of the things needing the most attention is the documentation. In spite of the attractive binder, there is a very disappointing lack of understandable explanations of just how to utilize the power of **SuperShipper 64**. Much of the information needed is contained, but it is not indexed to make it easily accessible when needed; everything needs explained in much more detail. A manual for a program of this sophistication should cover all material in detail, preferably from two different approaches to insure that the reader will comprehend the information covered.

Designed to work with multiple peripherals (and warranted to work with *five*), **SuperShipper 64** is best used with at least a dual drive. The ideal configuration for the system is one 1541, an MSD

dual drive, and two printers. I would really not relish the prospect of trying to run **SuperShipper 64** with a single drive, unless one was very partial to disk swapping. A very practical approach to software protection was used by Progressive Peripherals in this package. None of the disks are protected and the user copies the master program disk to make a working copy of the disk. **SuperShipper 64** uses a dongle which plugs into the joy port, but with a novel and very practical twist: the dongle is only required at the time you actually print out invoices. This opens some doors for several people at various work stations to enter transactions, someone else to print proofs and make any corrections needed, and yet someone else — equipped with the dongle — to actually print out the invoices when they are ready. Like I said, **SuperShipper 64** can accommodate some not-so-small operations!

The biggest single restriction is the usual problem of disk speed with the 1541 (and compatible) drives. Using an IEEE interface is one way to combat this time factor, but even then, when a program is using the disk drive(s) in an intensive manner, it *is* going to take some time. One of the ways **SuperShipper 64** squeezes so much versatility into the 64 is by loading the various modules into memory as they are chosen from the menus. Accordingly, after you've entered all of your invoice data, you have to load in another module (always selected from a menu) in order to proof the invoice, and then another module to print them. The only time that the lack of speed is more than just an annoyance is in the actual process of printing invoices; but then, that's a good time to start them printing and go have a cup of coffee, or lunch, or something else. If you've proofed the invoices first, it's not all that crucial to babysit them as they are printing. (I should point out that the slowness of the invoice printing is primarily due to the amount of cross referencing and storing of data. For instance, when you print out a customer list, one of the references provided by the system is the last invoice number assigned to that account.)

There are a number of minor improvements that could be made in **SuperShipper 64**, but most of them are quite insignificant in light of the power and productive nature of the package. (And many of them are already being taken care of in the forth-coming revisions in the program.) Granted, not everyone out there needs a software



package like this; but if you are in that minority who are trying to use your 64 in a productive manner in your business, **SuperShipper 64** is well worth your consideration. In fact, this program might just convince someone to buy a 64.

The other program that warrants consideration by small businesses is the **General Ledger** from B.E.S.T. Again, this isn't for everyone, but those with the need will welcome the news that here, indeed, is an accounting system that is both powerful and friendly. In fact, the entire B.E.S.T. series is so incredibly easy to use that it's easy to lose sight of just how powerful the software really is. The manual begins with general introductions and such basic information, that by the time the first-time user gets into the meat and potatoes, he'll probably realize that he understands far more than he expected. And once you've read through most of it once, you'll find that the menus and prompts are sufficient guidance to lead you through most daily operations.

Aside from the friendliness of the system design, the single most distinctive feature of the B.E.S.T. Ledger is the flexibility of the report generator. One of the most confusing, and most restrictive, aspects of most ledgers is the report capability. Either you are limited to three or four pre-designed financial reports, or you're faced with a hopelessly incomprehensible formatting process. It's at first an annoyance when you discover that there are *no* predesigned reports on the disk. Since all reports are stored on the user's data disk (which holds a two-year company history), it is necessary that all reports be designed and saved to disk. Well-documented examples of all the basic financial reports are included in the manual; and a pleasant side effect is that by the time the user enters these, he or she will have learned enough to design any customized or specialized report needed. And, after all, isn't that one of the primary reasons for computerizing financial records? To provide useful information, in an efficient and relative fashion? Filling that particular need is the strong suit of the B.E.S.T. Ledger. Once the reports are designed, they are selected from a menu and can produce a wide range of information including month-to-month, quarter-to-quarter, and year-to-year comparisons.

With capacity for 200 accounts in the ledger, few will find a need for a larger system. In fact, the 200 accounts in this system may prove to have larger capacities than comparable programs of-

fering 250 or 300 accounts because of the fact that none of these 200 are required for sub-totals or totals needed for reporting. Those are all accumulated during the reporting process and don't make demands upon the system capacities.

The largest restriction involved with **General Ledger** is the limited capacities of the accompanying **Accounts Receivable** package. With the receivables limited to only 100 accounts, many will find this may prevent them from running to two packages as an integrated system. When I out-grew the capacity of my first receivables data disk and added a second and third disk, I lost the ability to automatically post transactions from the ledger to the receivables file. This, in turn, dictates that the invoice information from my **SuperShipper 64** needs to be entered twice: into both the **General Ledger** and the **Receivables** file. This restriction, however, hasn't seemed significant enough to leave behind the simple approach to accounting and the versatile reporting capabilities of **General Ledger** in hopes of finding something bigger.

One caution I will offer, however, is that *any* double-entry ledger system is going to be quite bewildering to a user with no accounting background. I would highly recommend that before the novice attempts to tackle even *friendly* accounting software that they at least read a text book or two, and at best take an introductory accounting class at a local college. My old accounting text was more thoroughly read the first few days of setting up my system than it *ever* was while I was taking the class it once accompanied.

Both **General Ledger** and **SuperShipper 64** probably warrant much more detailed reviews, but my goal wasn't to walk you through all of the intricacies of either program. Instead, I just wanted to briefly explain why I'm using the particular software that I am, in hopes of possibly helping somebody solve a problem that they may be having, and perhaps opening some eyes as to the business applications that can be handled by the 64.

Both B.E.S.T. and Progressive Peripherals are to be commended for offering some *real* productive software that expands the capabilities of the 64. When they are placed in the arsenal with other powerful packages like **Superbase** it quickly becomes apparent that what was once a little game machine has grown into a very sophisticated and useful *real* computer.





**Don't make the mistake of waiting for the Amiga! — Buy an Apricot now . . . more machine, more software, less money!**

**THE 4TH GENERATION COMPUTER**

# apricot<sup>TM</sup>

**MS - DOS  
PERSONAL  
COMPUTERS**

*Bring in this ad  
for FREE gift with  
demonstration*

We be Apricot



Now you can see, use and buy the computers that OUTSELL IBM & APPLE COMBINED IN EUROPE. Highlighted by the new F SERIES Apricot Collection featuring the new GEM operating system by Digital Research, with GEM Desktop, GEM Write, and GEM Paint. Undoubtedly the best user interface anywhere; over 2500 Apricot MS-DOS software programs already available including all your current favorites: Lotus 123, Symphony, Framework, D-Base, Wordstar, Open Access, Word Perfect. Fully supported by the major software publishers, Ashton Tate, Microsoft, Etc.

**FREE**

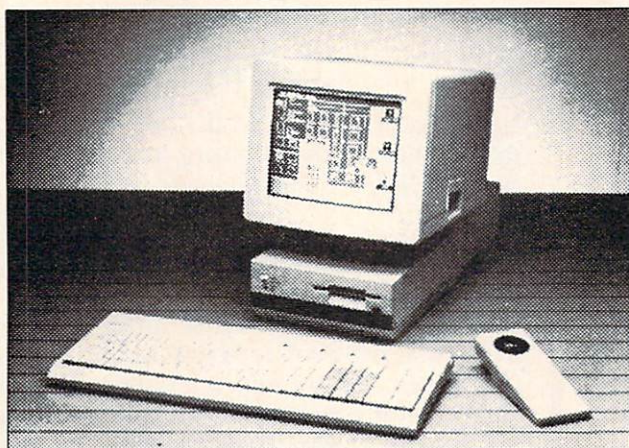
**LOTUS<sup>TM</sup> and WORDSTAR PROFESSIONAL<sup>TM</sup>**

With any Apricot purchased this week.  
Yes, even the F-1 at \$999.00!!!

**\$990<sup>00</sup>**  
Retail Value



Mackintosh  
R.I.P.



**APRICOT F-1**

**\$999**

**HERE'S WHAT YOU GET**

	Retail Value
F-1 Computer	\$995.00
GEM	\$195.00
Apricot Mouse	\$195.00
MS DOS	N/C
Lotus 123	\$495.00
<b>Total Retail Value</b>	<b>\$1880.00</b>

The Apricot Collection has been specifically designed for low cost business computing with unparalleled ease of use. Featuring the GEM graphic user interface, a standard 512k of RAM (expandable to 768k), double-sided 3.5" disk drive, cordless infra-red keyboard and mouse, and color electronics enabling the F series to display color on a wide variety of monitors, they set a new standard in entry-level business computing. Color cards already installed in all units.

F1 512K GEM/MOUSE	\$ 999.00	(single 3.5" disk drive)
F2 512K GEM/MOUSE	\$1,495.00	(twin 3.5" disk drives)
F10 512K GEM/MOUSE	\$1,995.00	(10 megabyte hard disk)

Available Monitors: 9" Mono \$295.00  
12" Mono \$345.00  
10" Sony Color \$495.00

Color cards already installed in all units

**The  
Apricot PC**  
16-bit processor.  
256K RAM.  
Micro Screen

**\$1695**

MS-DOS. Two 3 1/2" Sonydiskettes (720 kb each).  
Optional mouse.



**FREE  
LOTUS 123  
AND  
WORDSTAR**

**The  
Apricot xi**  
16-bit processor.  
512K RAM.  
Micro Screen

**\$2995**

Winchester hard disk (10 Mb).  
3 1/2" Sony diskette (720 Kb).  
Optional mouse.



- Q. What type of processor is used?  
A. The heart of the system is an Intel 8086, which operates with an 8089 I/O microprocessor. An 8087 math co-processor is also available as an option.  
Q. How much memory is available, and is it expandable?  
A. The Apricot comes with 256K or 512K RAM expandable or 1 megabyte non-expandable.

- Q. Can the Apricot be connected to larger computers?  
A. Yes.  
Q. Is there any application software for the Apricot?  
A. ACT has contracts with the top software developers to supply software for the Apricot. At present there are over 3000 titles available worldwide.

**This month, the purchase of either the PC or the xi models includes a FREE 12" monochrome monitor.**

## Comp-u-Desk

BEAVERTON  
MALL  
INSIDE PATLESS STORE  
OPEN 7 DAYS  
626-0175

JANTZEN BEACH  
MALL  
OPEN 7 DAYS  
286-8444

CLACKAMAS  
TOWN CENTER  
OPEN 7 DAYS  
652-2525

NOW OPEN AT WASHINGTON SQUARE TOO  
(FACING GREENBURG ROAD NEXT TO COMP-U-SHOP)  
OPEN 7 DAYS 10-9  
620-6430

NOW OPEN IN SALEM  
1911 LANCASTER DRIVE N.E. 581-1829

CAPT.  
COMP-U-  
DESK  
SEZ:





# Grant's Gonzo Open:

## The Contest Continues

by Grant Johnson

When I announced our "Win a 128PC" contest, my intent was to throw open the doors to all comers. Truth is, I didn't really care much what I got — so long as it didn't come in a slick package covered with over-blown "hype".

A few of the staff (and "fringe-ees") here made no secret of the fact that they thought I was asking for trouble. They were especially dubious of the way I went about announcing the contest; inviting "... 'off the wall', useful, useless, wacky programs ...". I took some razzing about "Grant's Gonzo Programmer's Open". At the other extreme of doubters, I was warned not to be too disappointed if I got a stack of "... clutzy programs that keep track of stamp collections", and the like.

Well, as the entries have come in, the doubters around here have been eating generous helpings of their own words!

With the vast amount of software available for the 64, most of you spend little of your computer time programming. That is as it should be, since programming is only one of the many possibilities open to those with a keyboard under their fingers. Yet some of you find, in the blinking cursor, a looking-glass passage to a world as wondrous as Alice's.

I know, because, thanks to the adventuresome souls who took a fling at our contest, *I've been there!* The range of entries has been amazing. Every thing from tightly-written utility programs that flash about their business at machine language speeds to little marvels I categorize as "close-up magic".

An example of the latter, is **Psych** — a program sent in by Tony Gould of Portland, Oregon. **Psych** is a 15-byte machine language program. What it does to a color screen *must* be seen.

Listing:

```

C000 SEI
C001 LDA #0B ;SET THE
C003 STA $D011 ; SCREEN BLANK M
ODE
C006 DEC $D020 ;DECREASE BORDER

```

COLOR BY 1

```

C009 DEC $D020 ;AGAIN
C00C JMP $C006 ;ENDLESS LOOP

```

For those of you who would like to try this from BASIC, key in the following: (Save this before you RUN or it will be lost.)

```

10 FOR X = 0 TO 14
20 : READ BYTE: POKE 49152 + X , BYT
E
30 NEXT X
40 SYS 49152
100 DATA 120, 169, 11, 141, 17, 208
110 DATA 206, 32, 208, 206, 32, 208
120 DATA 76, 6, 192

```

Not only have the program entries been well-written, but the documentation has been very good. For example the interesting program sent in by R. W. (Bob) Kober, of Buffalo, Texas, was accompanied by a listing and explanations that I wouldn't try to improve on:

No, this has nothing to do with your personal hygiene, unless you consider losing your temper a health hazard. *That* it may help to prevent.

This program will allow 'software' to write-protect a diskette. It will protect against writing just like the write-protect tab, but *without* using the tab. It will in no way prevent the diskette from being read in the normal manner.

The only ways to again write to a diskette, once GUARDED with Write Guard, are to re-format (NEW) the diskette, or to use Write Guard to UN-GUARD it. Obviously, unless you wish to lose all the data on the diskette, the second of these choices is the more logical.

When a diskette is GUARDED, the "2A" in the directory header is changed to "WG", indicating it has been Write Guarded. When the diskette is UN-GUARDED, the "WG" is changed back to "2A", as is normal. This change to the directory header is *cosmetic* only, and has no effect on the normal operation of the diskette, nor has it anything to do with the actual GUARDing process. It is simply an easy way to know that the diskette has been Write Guarded.

Let me interject a word of caution here. It is not advisable to use this program on commercially copy-protected diskettes, since many copy protection schemes modify the diskette BAM (Bit Availability Map), as does this program.

```

1 REM ***** WRITE GUARD *****
2 REM *** R.W. (BOB) KOBER *****
3 REM **** BUFFALO, TEXAS *****
4 REM **** AUGUST 4, 1985 *****
5 REM **** FOR 'THE GUIDE' *****
6 REM *****
10 C=53280:REM BORDER COLOR

```



```

11 E=65126:REM BASIC'S WARM START
12 CS$=CHR$(147):REM CLEAR HOME
13 GR$=CHR$(30):REM COLOR GREEN
14 RV$=CHR$(18):REM RVS ON
15 CU$=CHR$(145):REM CRSR UP
16 YES$=CHR$(158):REM COLOR YELLOW
17 LG$=CHR$(153):REM COLOR LT. GREEN
18 VO$=CHR$(146):REM RVS OFF
19 CY$=CHR$(159):REM COLOR CYAN
20 G3$=CHR$(155):REM COLOR GRAY 3
21 LB$=CHR$(154):REM COLOR LT. BLUE
22 WH$=CHR$(5):REM COLOR WHITE
100 POKE C,34:REM SET BORDER COLOR
110 POKE C+1,2:REM SET BACKGROUND COLOR
120 POKE 808,239:REM DISABLE RUN/STOP
130 PRINT CS$;GR$;TAB(44)"PUT THE DISK T
O GUARD OR UN-GUARD"
140 PRINT TAB(12)"IN THE DISK DRIVE."
150 PRINT TAB(47);RV$" PRESS ANY KEY WHE
N READY "
160 GOSUB 550
170 WAIT 198,1:REM WAIT FOR ANY KEYPRESS
180 PRINT TAB(13);CU$;YES$;RV$" WARNING!!
"
190 PRINT TAB(42)"ONCE GUARDED, ONLY RE-
FORMATTING OR"
200 PRINT TAB(2)"USING THIS PROGRAM WILL
AGAIN ALLOW"
210 PRINT TAB(2)"WRITING TO THIS DISK."
220 PRINT TAB(52)"CONTINUE? (Y/N)"
230 GOSUB 550
240 GET K$:IF K$="N" THEN 640
250 IF K$<>"Y" THEN 240
260 PRINT TAB(12);CU$;LG$;RV$" OKAY WORK
ING "
270 OPEN 15,8,15,"I"
280 OPEN 8,8,8,"#"
290 PRINT#15,"UA:"8;0;18;0
300 PRINT#15,"B-P:"8;2
310 PRINT TAB(43)"ENTER "RV$;"G";VO$
TO GUARD THE DISK, OR..."
320 PRINT TAB(9);RV$;"U";VO$" TO UN-GU
ARD THE DISK..."
330 GOSUB 550
340 GET K$:IF K$<>"G" AND K$<>"U" THEN 3
40
350 P$="UN-GUARDED.":IF K$="G" THEN P$="GUA
RDED..."
360 PRINT TAB(12);CU$;RV$;CY$;" STILL WO
RKING "
370 PRINT TAB(44)"THE DISK IS NOW BEING
";P$;YES$
380 GOSUB 550
390 IF K$="G" THEN 460
400 PRINT#8,"A";
410 PRINT#15,"M-W";CHR$(1);CHR$(1);CHR$(
1);CHR$(65)
420 PRINT#15,"M-W";CHR$(2);CHR$(7);CHR$(
1);CHR$(65)
430 PRINT#15,"B-P:"8,165
440 PRINT#8,"2A";
450 GOTO 490
460 PRINT#8,"4";
470 PRINT#15,"B-P:"8,165
480 PRINT#8,"WG";
490 PRINT#15,"UB:"8;0;18;0
500 CLOSE 8
510 PRINT#15,"I"
520 CLOSE 15
530 PRINT TAB(14);CU$;RV$;G3$" ALL DONE
";LB$
540 GOTO 650

```

```

550 FOR I=1 TO 20
560 PRINT WH$;"* ";YES$;
570 NEXT
580 PRINT
590 FOR I=1 TO 17
600 POKE C,(PEEK(C) AND 15)+1
610 FOR J=1 TO 15:NEXT
620 NEXT
630 RETURN
640 PRINT TAB(50);WH$;RV$;" PROGRAM ABOR
TED "
650 FOR I=1024 TO 2023:REM SCREEN MEMORY
660 POKE I,160:REM 160 = REVERSED SPACE
670 NEXT
680 POKE 808,237:REM RE-ENABLE RUN/STOP
690 SYS E:REM BASIC'S WARM START

```

Here is a line-by-line explanation of the actual program:

LINES 1-6 List the credits.

LINES 10-22 Assign values to numeric and string variables.

LINES 100-110 Set screen colors.

LINE 120 Disables the RUN/STOP key. This prevents breaking out of the program with files open.

LINES 130-150 Print instructions to the screen.

LINE 160 Sends program to a sub-routine that prints a line of stars (\*), and flashes the border color.

LINE 170 Memory location 198 contains the number of characters in the keyboard buffer. **WAIT 198,1** causes the program operation to pause, until a character is entered.

LINES 180-220 Print a warning to the screen.

LINE 230 Ditto line 160.

LINES 240-250 Wait for user to enter a "Y" or "N". If an "N" is entered, the program jumps to line 640.

LINE 260 Tells user the program is working.

LINE 270 Opens the command channel 15, and Initializes the drive.

LINE 280 Opens channel #8 to a data buffer in the drive.

LINE 290 Reads the data in Track 18, Sector 0 into the buffer belonging to channel #8.

LINE 300 Sets the BLOCK-POINTER in the buffer belonging to channel #8 to the third byte. (Byte zero is the first).

LINES 310-330 Get the users input to either Guard or Un-guard the diskette.

LINE 340 If neither "G" or "U" are entered, keep waiting.

LINE 350 Assigns a name to **P\$**, depending on the input from line 340.

LINES 360-380 Inform the user of the action taking place.

LINE 390 Sends program to line 460 if "G" was selected.

LINE 400 Writes an "A" to the byte pointed to by the Block-Pointer in line 300. If this byte is not an "A" (HEX \$41), the diskette cannot be written to.



LINES 410-420 Change the memory in the buffer with the Memory-Write command.  
 LINE 430 Sets the Block-Pointer to Byte #165.  
 LINE 440 Writes a "2A" here.  
 LINE 450 Sends program to line 490.  
 LINE 460 If "G" was selected in line 340, then a "4" is written to the byte pointed to by the Block-Pointer. (See line 400).  
 LINE 470 Same as line 430.  
 LINE 480 Writes a "WG" in Byte 165.  
 LINE 490 Writes the buffer controlled by channel #8 back to Track 18, Sector 0.  
 LINE 500 Closes channel #8.  
 LINES 510-520 Initialize the drive, and close channel #15.  
 LINES 530-540 Inform the user that the process is done.  
 LINES 550-630 Sub-routine that draws the line of stars (\*), and flashes the border colors.  
 LINE 640 Informs user the program has been aborted if "N" was selected in line 240.  
 LINES 650-670 Erase the screen at the end of the program.  
 LINE 680 Re-enables the RUN/STOP key.  
 LINE 690 Initializes BASIC's warm start routine located in the KERNAL ROM.

you know. What I was not prepared for, was the consistantly high quality of the submissions. Nearly all of them seem like winners to me--and they are! The publisher blanched when I lamented that I had but one computer to give for my contest, but did promise to work with me in finding some nice stuff to award the "runners-up".

Thanks for all the great input. It is a pleasure to be involved with a publication that is supported by readers with such talent and enthusiasm.



Entries must be submitted on disk, accompanied by an official entry form (see below). You may enter as many times as you wish.

All programs must be original (the more original the better!), and you must be willing to place the program in the Public Domain.

I knew at the onset that this contest would be impossible to judge fairly. Apples and oranges,

# Programming Contest

## Official Entry Blank

(Must Accompany Each Program Submitted)

Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Program Name: \_\_\_\_\_

I hereby certify that the submitted program is original. I also am hereby placing the program in the Public Domain and understand that it *may* be printed in *The Guide*, and may be included on future Public Domain Disks.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

(If entrant is under the age of 18, a parent or guardian must also sign.)

**Send all entries to:**

*The Guide*

Attn: Technical Editor  
3808 S.E. Licynta Ct.  
Portland, OR 97222

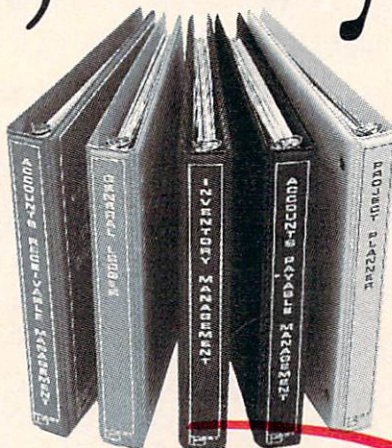




# Simple, easy to use.

*Professional quality* defines new B.E.S.T. software business management systems for the Commodore 64/128.\* Ease of use is unique. Manuals are illustrated, readable and easy to understand. Menus are clear and concise.

B.E.S.T. software gives you more time to focus on business. (No need for computer or accounting



experience.) B.E.S.T. systems *seem* simple. Yet this is very sophisticated software, easily capable of becoming the indispensable management tool.

*Our objective is to make your business easier to manage.*

Available at your local computer store.

**B.E.S.T.** Business Electronics  
Software & Technology, Inc.  
P.O. Box 852  
McMinnville, OR 97128  
(503) 472-9512



# BASIC Tokens for the 128 PC

by Bill Pytlovany

As a special service to those of you out there who have gotten (or are about to get) your C-128's, and would like to begin exploring the machine language potentials of your new machines, I have compiled a list of the tokens for BASIC key words. I have also included information on how the data is stored in memory, and where to look for it.

Under normal circumstances, BASIC memory on the C-128 begins at location 7168, or hex \$1C00. Following a GRAPHIC command, however, BASIC memory begins at 16384, or hex \$4000. If this is true, then \$1C00 - \$4000 is used for bit-mapped graphics. These beginning locations will contain a 0, with the first line of BASIC beginning in the following byte.

Each line of BASIC code stored in memory is preceded by four bytes of linkage information and terminated by a byte containing 0. The end of BASIC is denoted by three consecutive bytes containing 0.

Bytes one and two of the four-byte code contain the linkage address of the next line of BASIC code stored in memory. Bytes three and four (in low byte, high byte form) represent the BASIC line number.

The bytes within the lines consist of tokens which represent key words as indicated in the following table.

I've included both the hex *and* decimal numbers for your convenience. If you PEEK a location in BASIC you will get the decimal value, but if you use the built in Monitor and enter "M" the monitor will display the contents in hexadecimal.

## TOKEN TABLE — C-128 PC

Researched by Bill Pytlovany

20	32 [space]	21	33 !	30	48 0	31	49 1
22	34 "	23	35 #	32	50 2	33	51 3
24	36 \$	25	37 %	34	52 4	35	53 5
26	38 &	27	39 '	36	54 6	37	55 7
28	40 (	29	41 )	38	56 8	39	57 9
2A	42 *	2B	43 +	3A	58 :	3B	59 ;
2C	44 ,	2D	45 -	3C	60 <	3D	61 =
2E	46 .	2F	47 /	3E	62 >	3F	63 ?
				40	64 @	41	65 A
				42	66 B	43	67 C
				44	68 D	45	69 E
				46	70 F	47	71 G
				48	72 H	49	73 I
				4A	74 J	4B	75 K
				4C	76 L	4D	77 M
				4E	78 N	4F	79 O
				50	80 P	51	81 Q
				52	82 R	53	83 S
				54	84 T	55	85 U
				56	86 V	57	87 W
				58	88 X	59	89 Y
				5A	90 Z	5B	91 [
				5C	92 £	5D	93 ]
				5E	94 †	5F	95 —
				60-7F	Not used		
				80	128 END	81	129 FOR
				82	130 NEXT	83	131 DATA
				84	132 INPUT#	85	133 INPUT
				86	134 DIM	87	135 READ
				88	136 LET	89	137 GOTO
				8A	138 RUN	8B	139 IF
				8C	140 RESTORE	8D	141 GOSUB
				8E	142 RETURN	8F	143 REM
				90	144 STOP	91	145 ON
				92	146 WAIT	93	147 LOAD
				94	148 SAVE	95	149 VERIFY
				96	150 DEF	97	151 POKE
				98	152 PRINT#	99	153 PRINT
				9A	154 CONT	9B	155 LIST
				9C	156 CLR	9D	156 CMD
				9E	158 SYS	9F	159 OPEN
				A0	160 CLOSE	A1	161 GET
				A2	162 NEW	A3	163 TAB(
				A4	164 TO	A5	165 FN
				A6	166 SPC(	A7	167 THEN
				A8	168 NOT	A9	169 STEP



AA	170 +	AB	171 -	CE	06 RSPRITE
AC	172 *	AD	173 /	CE	07 RSPCOLOR
AE	174 †	AF	175 AND	CE	08 XOR
B0	176 OR	B1	177 >	CE	09 RWINDOW
B2	178 =	B3	179 <	CE	0A POINTER
B4	180 SGN	B5	181 INT	FE	02 BANK
B6	182 ABS	B7	183 USR	FE	03 FILTER
B8	184 FRE	B9	185 POS	FE	04 PLAY
BA	186 SQR	BB	187 RND	FE	05 TEMPO
BC	188 LOG	BD	189 EXP	FE	06 MOVSPR
BE	190 COS	BF	191 SIN	FE	07 SPRITE
C0	192 TAN	C1	193 ATN	FE	08 SPRCOLOR
C2	194 PEEK	C3	195 LEN	FE	09 RREG
C4	196 STR\$	C5	197 VAL	FE	0A ENVELOPE
C6	198 ASC	C7	199 CHR\$	FE	0B SLEEP
C8	200 LEFT\$	C9	201 RIGHT\$	FE	0C CATALOG
CA	202 MID\$	CB	203 GO	FE	0D DOPEN
CC	204 RGR	CD	205 RCLR	FE	0E APPEND
CE	206 ****	CF	207 JOY	FE	0F DCLOSE
D0	208 RDOT	D1	209 DEC	FE	10 BSAVE
D2	210 HEX	D3	211 ERR	FE	11 BLOAD
D4	212 INSTR	D5	213 ELSE	FE	12 RECORD
D6	214 RESUME	D7	215 TRAP	FE	13 CONCAT
D8	216 TRON	D9	217 TROFF	FE	14 DVERIFY
DA	218 SOUND	DB	219 VOL	FE	15 DCLEAR
DC	220 AUTO	DD	221 PUDEF	FE	16 SPRSAV
DE	222 GRAPHIC	DF	223 PAINT	FE	17 COLLISION
E0	224 CHAR	E1	225 BOX	FE	18 BEGIN
E2	226 CIRCLE	E3	227 GSHAPE	FE	19 BEND
E4	228 SSHAPE	E5	229 DRAW	FE	1A WINDOW
E6	230 LOCATE	E7	231 COLOR	FE	1B BOOT
E8	232 SCNCLR	E9	233 SCALE	FE	1C WIDTH
EA	234 HELP	EB	235 DO	FE	1D SPRDEF
EC	236 LOOP	ED	237 EXIT	FE	1E QUIT
EE	238 DIRECTORY	EF	239 DSAVE	FE	1F STASH
F0	240 DLOAD	F1	241 HEADER	FE	21 FETCH
F2	242 SCRATCH	F3	243 COLLECT	FE	23 SWAP
F4	244 COPY	F5	245 RENAME	FE	25 FAST
F6	246 BACKUP	F7	247 DELETE	FE	26 SLOW
F8	248 RENUMBER	F9	249 KEY		
FA	250 MONITOR	FB	251 USING		
FC	252 UNTIL	FD	253 WHILE		
FE	254 *****	FF	255 [PI]		

Because of limitations, some instructions require two-byte tokens to represent them:

CE	03	BUMP
CE	04	PEN
CE	05	RSPPOS

“Adversity is the state in which a man most easily becomes acquainted with himself, being especially free from admirers then.”

Samuel Johnson

“Keep away from people who try to belittle your ambitions. Small people always do that, but the really great make you feel that you, too, can become great.”

Mark Twain



# Potpourri

## Quickies, Short Takes & Nutshell Reviews

### Navarone Cartridge Expander

What all can you say about a cartridge expander? It works, or it doesn't; you either need one, or you don't; and it's either priced right, or wrong. First of all, the Navarone expander works quite nicely; secondly, only *you* know if you need it or not; and thirdly, if you do need it, you'll probably not find a better price than this.

The under \$30 price may just convince some people that didn't need one before that maybe they do now. It holds three cartridges, with a toggle switch for selecting which cartridge you wish to use, and also adds a reset switch for those who haven't already added on to their system.

While I have only one cartridge that I use (my COMAL 2.0), I never really considered expanders. I did find it quite nice to switch from BASIC to COMAL with a simple flip of a switch.

If you use cartridges in your system, this is a good buy, and well worth your consideration.

Randy Chase

### The Pow'r-Pak 64

I had just received my brand new SFD-1001 drive and Bus Card II, and couldn't wait to use it! After about 15 minutes of copying programs, my C-64 crashed. It crashed in a manner similar to the way it crashes when I use **The Consultant** data base program, with "dongle". Panic set in, until I found out from three independent sources that I was having power supply problems.

I remembered seeing a replacement power supply — a heavy duty one — from Universal Software, for \$47.95. After talking with Universal, I bought the supply, and my computer has not crashed since!

The supply, distributed by Huff Electronics, Inc., has a suggested retail price of \$59.95. It has the usual advertising sheet, that usually promises more than it can deliver. Not this power supply!!! The **Pow'r-Pak 64** has more features than most small computer power supplies.

First of all, the best feature is its repairability. That's right! If something should go wrong, it can be repaired. It is guaranteed for one year.

It can be switched on and off, just like your

computer. It also has a built-in surge protector, along with two AC outlets.

I find it can not only handle the SFD-1001 with Bus Card II (by Batteries Included) but also a dongle for **The Consultant** data base, a printer, and an Indus GT drive at the same time — with all systems on and running!

When I used my standard C-64 power pack, I found the pack getting extremeley hot after three to four hours' use. The **Pow'r-Pak 64** gets warm after about eight hours' use. Never hot.

I suggest to all of you that if you have experienced power supply problems in the past, you should invest in the **Pow'r-Pak 64**. Cost — \$47.95 + \$2 shipping, from Universal Software, 1-800-343-8019. It will most likely be the last power supply you will ever buy for your C-64!

Alan Eisenberg

## \$5 SOFTWARE

### THE BEST C64 PUBLIC DOMAIN SOFTWARE

We offer you the best selection, best documentation, and the Best Price.

Most user supported public domain libraries are impossible to use being both incredibly disorganized and lacking in documentation. We at 64 Gold have taken a professional approach to the problem and publish a library of outstanding selections of the best C64 public domain software in existence for only \$5.00 a diskette. Each diskette is FULL of software to help you get more out of your Commodore 64.

Write Or call Today for **free brochure** listing selections or choose one of the following.

- Starter Kit - one each, utility disk, game disk and 44 page documentation catalog of individual programs \$10 (\$15 value)
- Our documentation catalog - 44 pages about the programs in the library with valuable information on individual programs. \$5.
- Set of 5 introductory disks with documentation catalog - top games, utilities and educational programs. \$29
- Set of 10 "Solid Gold" disks - the ten best disks in our library includes, documentation catalog, directory index utility, fast copy, word processor, machine language tutor, and super games! \$49.
- Complete set of 64 disks with documentation catalog \$256 - Save \$64

California Residents add State Sales tax  
Add \$3.50 Shipping and handling include payment with order VISA/MC OK

**64 GOLD**

3219 Folsom St.  
San Francisco, CA 94110  
**(415) 550-8222**



## Treasure Island and Wizard of Oz — by Windham Classics

Windham Classics, the people who brought you **Swiss Family Robinson** in adventure form, have released two new graphics and text adventures: **Treasure Island**, and **Wizard of Oz**. These are suitable for older children and adults, and feature very nice graphics, music, and are true to the plots of the original stories.

Each of these adventures takes three disks, and comes complete with a nice instruction booklet that sets the stage for the adventure. In the back of the booklet is a complete vocabulary list; very handy when you are searching for the right command to accomplish your wishes. The parser will accept multiple commands, making the game not only more realistic, but faster to play. These adventures are not just for kids. I have tried both of them, and find them to be most interesting!

John Olsen

## Donald Duck's Playground — from Sierra On-Line

A delightful game! This is one you can't go wrong in getting for your young children. The package recommends ages seven to eleven, but it's already my son's favorite, and he's only 2½. But then he cons Mommy and Daddy into playing it with him quite frequently.

A combination of fun and challenging games (disguised as jobs) allow the child to earn money. At McDuck Airlines, Donald is faced with the task of transferring packages from a conveyor belt into the appropriate boxes on the luggage trams passing by. At the produce market, the obstacle is to catch the fruit thrown from the truck and then sort it into the proper containers. The toy store "job" involves placing the proper toys on the shelf where they belong (requiring that they match both the shape and the color). My personal favorite (and, of course, the one Jonathan is the least interested in!) is the AmQuack Railroad where Donald must man (or duck?) the switches that route the AmQuack Express from station to station, picking up and delivering packages.

All of these jobs reward the player with money, which can then be used in the three stores to purchase equipment for the playground. The child is required to pay for the purchases and count the change. Once all of this educational

stuff is accomplished, Donald can build the playground and his nephews can enjoy the slides, monkey bars, ladders, tire swings, etc. that Donald has purchased.

With three difficulty levels, and a variety of game options this is a package that your child won't tire of in a day or two. From Sierra On-Line. \$39.95.

Randy Chase

## Hacker — by Activision

Activision's eagerly-awaited **Hacker** has arrived — and, as promised, comes with absolutely no instructions or help of any kind. When you load the game, you presented with a blank screen and the words:

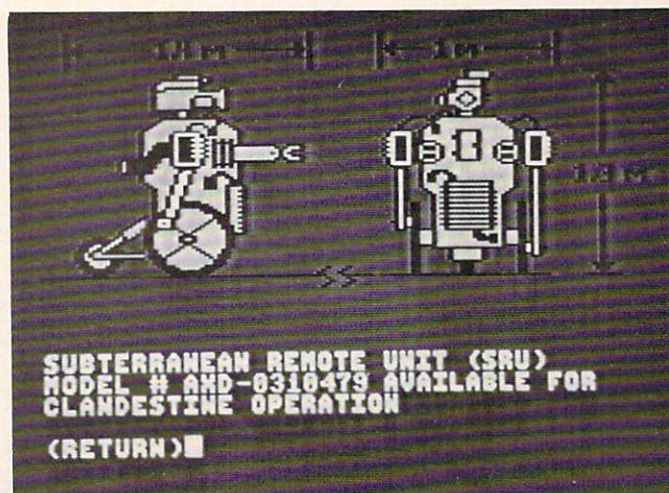
### LOGON PLEASE:

You have accidentally phoned some mysterious system with your computer, and now must find out what's going on.

As you soon find out, you must control a robot through tunnels beneath the surface of the earth. You must make your robot surface in certain cities and deal with spies, all in an attempt to retrieve the shredded pieces of an important document. When assembled, they must be taken to Washington, DC.

The game is fun, and the graphics are astounding! So much for realism; real-life telecommunications can't support this kind of detailed graphics and speed. If I were to actually call such a system, I would find myself looking at text, not fancy colorful graphics that uses a joystick! But if you can overlook this gap in logic, you will find a fascinating adventure game that may take weeks to complete.

John Olsen





# Testing 1...2...3

by Mindy Skelton

If you've secretly longed to hear the voice of your 64 droning away in your shell-like ear as the two of you compute away in the wee small hours of the morning (because God knows there are no *human* voices to hear at that hour), or if you'd just like to add speech to your programs, or even hear some of your old favorites as read by your computer, then Currah Technology has just the thing for you. **The Voice Messenger**, and its companion **Easy Speech-64** add speech to your system at the touch of a finger.

Unlike many systems which use software to add speech, **The Voice Messenger** is cartridge-based. You simply plug in the cartridge, hook it up to your TV or monitor (everything you'll need to do this is included ... and it's a *snap* ... even *I* could do it) and power up. When you type in the phrase `INIT` you are up and running ... er ... talking. In fact, when you type `INIT` the computer lets you know everything is correct by saying "RETURN" as you hit the return key.

In this initial condition you are speaking in `VOICE 1` (a high male voice), and every key stroke you make (including `SPACE`, cursor movement, colors and graphic characters) is verbalized. If you want to change things so that only what you specify is spoken, simply type `KOFF` and the individual keystrokes are now silent. (They can be turned back on by typing `KON` ).

If you wish to use the other voice available to you (a low male voice) you simply type `VOICE 0` or `KON 0` . The default setting is voice 1, so if the keyboard speech is off, `KON` alone will turn it back on with voice 1. The `KOFF` and `KON` commands can both be used from within a BASIC program.

Now, on to the heart of the system — getting your machine to say what you want it to, and, more importantly, getting it to say things in such a way as to be comprehensible. (Sometimes no small task). The speech of **The Voice Messenger** is based on "allophones" — that is, individual speech sounds. These sounds are strung together to form individual words and phrases. What this means to you is that you are not limited by a built-in vocabulary. You can get your computer to say anything you can think of simply by providing the correct allophone.

**The Voice Messenger** has a built-in "text to speech interpreter" which can automatically scan text and convert it to the appropriate sounds. All

you need do is include the command `SAY` followed by the phrase you want (in quotes).

For example if you were to type, `SAY "HELLO"` your computer would respond aloud with "Hello". (What a feeling of success ... rapport finally established!)

If, on the other hand, you were to type:  
`SAY "CRABBY APPLETON, YOU'RE ROTTEN TO THE CORE"`

(thank you, Tom Terrific) and press `RETURN`, your computer would respond by saying something that sounded very much like "CRABII APP ULTONNE YOU'RE ROTTEN TO THE CUR". Well, er, that's close, but not quite it. What's to be done? Ah ... here's where we come to the allophones, or individual speech sounds.

There is a list provided to you of the mnemonic forms of the allphones and common examples. So, for example, if you want the "th" sound from "thin", you look in the list and see you would type "th", but if you want the "th" sound in "then", you would type "dth". To include these sounds in your speech, you enclose them in parentheses, and enclose that word in brackets. So, to get our sample phrase to sound right, we would enter:

`SAY "[Crab(ee)] APPulton, your ROTTEN to the coore."`

The capitalized letters are slightly emphasized.

**Easy Speech-64**, the companion software to **Easy Speech**, gives your computer the capability to read pre-programmed software. I loaded it in (and, by the way, I couldn't get mine to work unless I loaded it BEFORE I activated the speech synthesizer), and then, loaded in my favorite Infocom game. A few minutes, a few "whirrs" and there I was ... with my little Commodore happily reading **The Hitchhiker's Guide to the Galaxy** to me.

The uses of this feature for pre-literate children, or the blind leap immediately to mind, and other uses are sure to follow.

All in all, I was very pleased with **The Voice Messenger** (even though I couldn't manage to get it to work with my favorite on-line systems, which was a bit of a disappointment), and **Easy Speech**. They were much more satisfactory than other speech systems I have played with, even though I would have liked an option for a female voice. If you have been looking for a way to add speech, I'd strongly suggest you give this system a try.





# YES! Some Back Issues are Available . . .

## June, 1984.....\$1.50

Di-Sector review ... Summer Games Review ... TV/monitors ... Disk Error Checking Explained ... Advice for the prospective computer shopper ... Data 20 80-Column Card ... COMAL survival guide ... Super-forth ... Flying Colors ... 1541 DOS and Error Detection

## September, 1984.....\$1.50

Qwerty Or Not ... BASIC: Input vs Get ... Software Protection Handbook ... Seven Cities Of Gold ... Terminex (Public Domain Terminal Listing) ... Aztec ... IEEE Interfaces

## October, 1984.....\$1.95

Introducing PlayNET ... A Comparison of Word Processors ... Punter's WP64 ... Blue Max ... Ft. Apocalypse ... Zaxxon ... Computer Violence ... Complete Personal Accountant ... Gemini Reviewed ... COMAL Graphics ... Head Cleaning Utility ... Homeword ... Arrays, Part One ... Error 29 Writer

## November, 1984.....\$1.95

Plus/4 ... Impossible Mission ... Arrays, Part Two ... Educational Software ... Mind Prober ... PlayNET ... Introduction To Data Bases ... Adventure Generators Compared ... The Curmudgeon Looks At Copy Protection ... Abacus M/L Simulator Corrected and Enhanced! ... Covox Speech Master Reviewed ... New BBS Protocols ... SIM-UN Program Listing ... Relative Files, Part 2 ... Turtle Graphics

## December, 1984.....\$1.95

Muppet Learning Keys ... Arrays ... VIDTEX Review ... Introduction to Machine Language ... Thin Spread, Part 1 ... Hangman in COMAL 0.14 ... Easy Script ... Fahrenheit 451 ... Auto Boot Program ... Structured Design Part 1

## January, 1985.....\$1.95

Print Shop ... Thin Spread Part 2 ... On-Court Tennis ... Trivia Fever ... Muppet Learning Keys ... The Curmudgeon Looks at Junk Mail ... Error 29 Maker ... Data Statement Generator ... FOR/NEXT Loops ... 1541 Flash! ... COMAL: Procedures and Functions, Part One ... Computer Widow's Compendium

## February, 1985.....\$1.95

Commodore 128 ... Wanderings in an Electronic Wonderland (CES) ... GOTO/GOSUBS ... COMAL: Procedures, Part Two ... Pascal, Part 1 ... Keypad 64 in ML, BASIC, and COMAL 0.14

## March/April, 1985.....\$1.95

Superbase 64 ... B.E.S.T. Accounts Receivables ... Introduction to Compilers ... West Coast Commodore Convention ... Father's Time (Calendar Program) ... Pascal #2 ... Oxford Pascal Reviewed

## April/May, 1985.....\$1.95

Bank Street Music Writer ... 1541 Maintenance Tips ... Random Number Generation ... Moving Up to COMAL 2.0 ... Dear Computer Widow ... Interview With PlayNET's Cathy Anderson ... Pascal #3 ... User Friendly Computers?? ... Structured Design, Part 2 ... History of MARCA ... BASIC Variables

## June, 1985.....\$2.50

Introducing the 128PC ... Commodore's "new" customer service policies ... Advance look at BASIC 7.0 ... Vizastar Review ... Party Quiz Review ... COMAL-Recursion, Part 1 ... PlayNET-Behind the Screens ... I Don't Speak Hexidecimal ... Mindy's Infidelity ... AutoVenture Part

1-Editor ... Pascal, Part 4-Including Character Value Conversion Chart ... Software Protection Handbook Review ... Potpourri-Capsule Reviews ... 80-Column Card-Power Supply Problems ... Printer Commands for Easy Script© ... Article-All Hail the Mighty Micro ... Article-Innocent Integer.

## July, 1985.....\$2.50

Chicago Summer CES Coverage-New Products from Commodore ... Animation Station Review ... Marvel-John Olsen's "Magic" Tricks ... Music on the 128PC ... Mindy Reviews Moondust and The Thriller Collection ... Humor-Peanuts in Perth, Computer Widow's Compendium, I Don't Speak Hexidecimal ... Articles-Batch Files, Evolution of Numbers, Guide to Telecommunications ... Machine Language Series Begins ... AutoVenture, Part 2-Generator and Player Listings ... Programming Contest-Win a 128PC! ... Potpourri-Capsule Reviews ... Beginner's Corner-Conclusion of Strings ... Pascal, Part 5 ... User Group Listings

## August, 1985.....\$2.50

Software Sequels-Reviews of Summer Games II and Beach Head II ... Mr. Magic-Another "Trick" from John Olsen ... Beginner's Corner-Intro to Printers and Interfaces ... Humor-I Don't Speak Hexidecimal, You Call THAT a Chair? ... COMAL Sprite Generator ... ISEPIC Review ... Educational Software-Some Advice to Shoppers ... Machine Language Series-Memory Addresses ... Downloading from CompuServe ... Potpourri-More Capsule Reviews ... Pascal, Part 6-The Flow of Control ... Fiction-Life With A Commodore Sidekick ... User Group Listings

The above back issues may be purchased — each at its cover price plus \$1.00 shipping and handling per magazine. (Maximum S&H per order is \$3.00).

Make checks payable to:

*The Guide*  
3808 S.E. Lincyntra Court  
Milwaukie, OR 97222

Name

Address

City  State  Zip

Please send me the following Back Issues:

Qty	Month Desired	Pr. Ea.	Price
Total Price			
Add \$1.00 each S&H (\$3.00 max.)			+
Amount Enclosed			



# User Group Directory

## Arizona

Central Arizona PET People  
842 W. Calle Del Norte  
Chandler, AZ 85224

VIC Users Group  
2612 E. Covina  
Mesa, AZ 85203

ACUG  
2028 W. Camelback Road  
Phoenix, AZ 85015

Prescott Area Commodore Club  
P.O. Box 26532  
Prescott Valley, AZ 86312

Catalina Commodore Computer Club  
201 Z Avenida Guillermo  
Tucson, AZ 85710

## California

Auburn Commodore Club  
11210 Mira Loma Drive  
Auburn, CA 95603

Valley Computer Club  
2006 Magnolia Blvd.  
Burbank, CA 91506

CUTG  
P.O. Box 1497  
Costa Mesa, CA 92628

Commodore 64 West User Group  
P.O. Box 346  
Culver City, CA 90230

Humboldt Commodore Users Group  
P.O. Box 6502  
Eureka, CA 95501

Sixty Forum  
P.O. Box 16098  
Fresno, CA 93755

Commodore 64 Club  
1804 N. Dundee  
Highland, CA 92346

Sacramento Commodore Computer Club  
P.O. Box 2227  
Sacramento, CA 95810

San Diego Commodore Users Group  
Box 86531  
San Diego, CA 92138

San Diego PUG  
3562 Union Street  
San Diego, CA 92101

S.F. Commodore Users Group  
278 27th Ave. #103  
San Francisco, CA 94121

Marin Commodore Computer Club  
620 Del Ganado Road  
San Rafael, CA 94903

## Delaware

Newark Users Group  
Robert Taylor  
210 Durso Dr.  
Newark, DE 19711

## Idaho

64 BUG  
P.O. Box 276  
Boise, ID 83701

Eagle Rock Users Group  
900 s. Emerson  
Idaho Falls, ID 83401

## SOFTWARE PLUS

OUR SPECIALTY —  
*after sale support!*

358 WARNER MILNE ROAD  
OREGON CITY, OR 97045  
(DANIELSON HILLTOP MALL)  
657-5215

AUTHORIZED COMMODORE  
REPAIR CENTER

1541 DRIVE ALIGNMENT . . . . . \$35<sup>00</sup>

ENHANCER 2000 DISK DRIVE  
INTRODUCTORY SPECIAL -- \$185<sup>00</sup>  
(by Special Order)

SAM'S OFFICIAL BOOK FOR THE C-128  
IN STOCK . . . . . \$129<sup>95</sup>

WATCH FOR SOFTWARE PLUS BULLETIN  
BOARD — COMING SOON  
CLEAN EDGE PRINTER PAPER  
(BOX OF 2500) . . . . . \$249<sup>95</sup>

WE WILL  
SPECIAL ORDER  
FOR ANY SOFTWARE/HARDWARE TITLE.

NOW IN STOCK:  
COLORED PRINTER PAPER —  
RAINBOW PACKS  
COLORED RIBBONS

DISK NOTCHER . . . . . \$79<sup>99</sup>  
DS/DD GENERIC DISKS 00¢  
Reg. \$1<sup>00</sup> ea. WITH THIS AD 00¢ ea.  
Offer Good until Oct. 31, 1985



Commodore User's Group  
310 Emerald Drive  
Kellogg, ID 83837

Pocatello Commodore Users Group  
82 Mountain Drive  
Pocatello, ID 83204

User's Group of Lower Idaho  
Route 4, Box 67  
Rupert, ID 83350

Caribou Commodore Club  
P.O. Box 535  
Soda Springs, ID 83276

---

## Maryland

Compucats  
Betty Scheuler  
680 W. Bel Air Ave.  
Aberdeen, MD 20001

FOCUS  
Gary Stone  
P.O. Box 153  
Annapolis, MD 20701

Viclique  
Pat Foley  
105A Conduit Street  
Annapolis, MD 21001

Baltimore Commodore Users Group  
John Reynolds  
907 W. 36th Street  
Baltimore, MD 21211

Westinghouse Commodore Users Group  
Lee Barron  
Mail Stop 5320 — P.O. Box 1693  
Baltimore, MD 21203

Woodlawn Commodore Club  
George Towner  
1712 Aberdeen Road  
Baltimore, MD 21234

The Boyds Connection  
Tom DeReggi  
21000 Clarksburg Road  
Boys, MD 20841

Southern Md. Commodore Users Group  
Tom Helmke  
6800 Kilarney Street  
Clinton, MD 20735

Hyattsville C-64 Users Group  
Kay Carpenter  
7209 Dartmouth Ave.  
College Park, MD 20740

Gaithersburg C-64 User Group  
Russell Jarosinski  
12937 Pickering Drive  
Germantown, MD 20874

Jumpers 20/64's  
Walt Marhefka  
7837 B&A Ave.  
Glen Burnie, MD 21061

Hagerstown User Group  
Joe Rutkowski  
23 Coventry Lane  
Hagerstown, MD 21740

West Montgomery County C-64 User Group  
Mark Richardson  
8700 Hidden Hill Lane  
Potomac, MD 20854

BAYCUG/ Robert Smith  
110 Danbury Road  
Reisterstown, MD 21136

Rockville VIC/64 User Group  
Tom Pounds  
5112 Parklawn Terrace  
Rockville, MD 20852

Montgomery County Commodore Users Group  
Meryle Pounds  
P.O. Box 6444  
Silver Spring, MD 20906

Edison Commodore Users Group  
Bill Harr  
4314 Oxford Drive  
Suitland, MD 20746

---

## Massachusetts

Boston Computer Society — CBM Section  
Jim Yost  
577 Broadway  
Boston, MA 02127

Eastern Mass 20/64  
Frank Ordway  
6 Flagg Road  
Marlboro, MA 01752

---

## Minnesota

Metro Area Commodore Club  
Box M  
Mendota, MN 55150

---

## New Jersey

South Jersey Commodore Users Group  
Mark Orthner  
P.O. Box 420  
Cherry Hill, NJ 08034

Somerset Users Group  
Stan Kosciuk  
5 Shasta Pass  
Fanwood, NJ 07023

RCA Commodore Users Group  
William Rowe  
432 Hemlock Lane  
Mount Holly, NJ 08060

---

## New York

Manhattan 64  
Greg Pumroy  
139 Guernsey Street #1R  
Brooklyn, NY 11222

Queens Commodore Users Group  
Sam Soltan  
67-42 Harrow Street  
Forest Hills, NY 11375

Long Island VIC Enthusiasts  
Arnold Friedman  
17 Picadilly Road  
Great Neck, NY 11023

Upstate Commodore Users Group  
Chris Johnson  
P.O. Box 5242 Arnot Mall  
Horseheads, NY 14844

Vic/64 User Group  
John Mason  
249 S. 14th Street  
Lindenhurst, NY 11757

Metropolitan Life Insurance Users Group  
Harry Kristy  
P.O. Box 618  
New York, NY 10159

New York Commodore User's Group  
Shelly Roberts  
135 Charles Street, Apt. 4-E  
New York, NY 10022

"CitiGroup"  
N.Y. Vic 20/C-64 User Group  
C/O N.Y. Amateur Computer Club  
Attn: Brian Glover  
P.O. Box 106  
Church Street Station  
New York, N.Y. 10008

Oswego Commodore Users Group  
Dr. John Boronkay  
Dept. Industrial Arts & Technology  
SUNY  
Oswego, NY 13321

Schenectady Commodore Users Group  
Bill Pytlovany  
7 Center Street  
Scotia, NY 12302

---

## North Carolina

Commodore Users Group of Fayetteville  
Steve Peterson  
612 Brittany Place  
Fayetteville, NC 28304

Hendersonville Users Group  
Jerry Baldwin  
Rt. 6 — Box 101  
Hendersonville, NC 28739

---

## Ohio

Clercom 64  
Wally Jones  
5152 Benton Road  
Batavia, OH 45103

Central Ohio Commodore Users Group  
Philip Lynch  
P.O. Box 28229  
Columbus, OH 43228-0229

C-64 Users of Philadelphia  
Bonnie Mackie  
1292 Bluebird, SW  
Dellroy, OH 44620

CPU Connection  
Bob Zak  
10201 Plymouth  
Garfield Heights, OH 44125

Cincinnati Commodore Computer Club  
Attn: Wally Jones  
P.O. Box 450  
Owensville, OH 45160

---

## Oregon

Albany/Corvallis 64 Users Group  
Al Rasmus: (503) 967-8701  
Steve Johnson: (503) 752-7614

Astoria Commodore Users Group  
Kent Paulsen: (503) 325-5685

Beaverton 64 Users Group  
Jack Simpson  
(503) 646-9596



Coos Computer Club  
P.O. Box 4066  
Eastside, OR 97529

Lane County C-64 Users Group  
P.O. Box 11316  
Eugene, OR 97440  
(503) 726-2131

Springfield Commodore Users Group  
4400 Franklin Ave., Suite 1443  
Eugene, OR 97403  
(503) 741-2522

Oregon Commodore Computer Users Group  
Bob Koch  
6179 S.W. Carman Drive  
Lake Oswego, OR 97034  
(503) 636-3432

Milwaukie Commodore Users Group  
Mike Garvin: (503) 255-1376  
Mt. Hood Community College Users Group  
John Januzzi  
(503) 663-1900

Southern Oregon VIC/64 Users Group  
P.O. Box 765  
Phoenix, OR 97501

North Portland Commodore Users Group  
VIC-20 SIG  
Doug McMurdo: (503) 245-2571  
C-64 SIG  
Gary Thompson: (503) 666-4131

Salem 64 Users Group  
3795 Saxon Drive S.  
Salem, OR 97302

Columbia County Commodore Club  
Gary Thomas  
424 South 17th Street  
St. Helens, OR 97051

Columbia Commodore Computer Users  
Ken Denniston  
1214 Washington  
The Dalles, OR 97058  
(503) 298-5965

Yamhill County Commodore Users  
Route 2, Box 246  
Sheridan, OR 97378

## Pennsylvania

Lehigh Valley Commodore User Group  
Hiram Cook  
2228 Baker Drive  
Allentown, PA 18102

Ft. Indiantown Gap Commodore Club  
William Fuerst  
Bldgs 9-11, Mail & Distribution  
Ft. Indiantown Gap  
Annville, PA 17003

Scranton Commodore Users Group  
Mark Davis  
P.O. Box 211  
Clarks Summit, PA 18411

NEPACC Commodaters  
P.O. Box 644  
Conyngham, PA 18219

North Coast Commodore Users Group  
Dale Niedzielski  
P.O. Box 493  
Fairview, PA 16415

Westmoreland Computer Users Club:  
Commodore Section  
Jim Mathers  
3021 Ben Venue Drive  
Greensburg, PA 15601

Capital Area Commodore Club  
Brad Mitchell  
1089 D Michigan Drive  
Harrisburg, PA 17111

Indiana Commodore Users Group  
Richard Halapin  
98 Rex Ave.  
Indiana, PA 15613

Wyoming Valley Commodore Users Group  
John Youells  
94 Second Ave.  
Kingston, PA 18704

Eight Squared  
Mindy Skelton  
P.O. Box 76  
Mt. Holly Springs, PA 17065

Sperry-New Holland Users Group  
John Bowman  
500 Diller Ave.  
New Holland, PA 17557

Philadelphia Area Computer Society —  
CBM Section  
Dennis Sasna  
919 E Godfrey Ave.  
Philadelphia, PA 15236

Pittsburgh Commodore Group  
Joel Casar  
2015 Garrick Drive  
Pittsburgh, PA 15235

Main Line Commodore Users Group  
Emil Volcheck  
1046 General Allen Lane  
West Chester, PA 19380

South Pittsburgh Commodore Users Group  
Chuck Groves  
2407 Pennsylvania Ave.  
West Mifflin, PA 15122

West Branch Commodore Users Group  
Gene Loveland  
P.O. Box 995  
Williamsport, PA 17703

## Virginia

Franconia Commodore Users Group  
Mark Sowash  
6209 Rose Hill Drive  
Alexandria, VA 22310

Navair Commodore Users Group  
Jon Steeby  
4423 Raleigh Ave. #102  
Alexandria, VA 22304

Arlington Victims (20/64)  
Clifton Gladney  
4501 Arlington Blvd.  
Arlington, VA 22204

Dale City Commodore Users Group  
Pat Sullivan  
4303 Hemingway Drive  
Dale City, VA 22193

Piedmont Users Group  
David Gray  
135 Beverly Road  
Danville, VA 24514

PENTAF (Pentagon)  
Ralph Poole  
9912 Colony Road  
Fairfax, VA 22030

Franklin Users Group  
Bruce Powell  
1201 North High Street  
Franklin, VA 23815

Fredricksburg CCC  
Steve Northcutt  
Box 1011 College Station  
Fredricksburg, VA 22402

Washington Area C-64 User Group  
Martin Smith  
7426 Eldorado Street  
McLean, VA 22012

Washington Area C-64 User Group  
Dick Jackson  
P.O. Box 93  
Mt. Vernon, VA 22121

Tidewater Commodore Users  
P.O. Box 61814  
Virginia Beach, VA 23462

## Washington

CBM User's Group  
c/o Rick Beaber  
803 Euclid Way  
Centralia, WA 98531  
(206) 736-4085

Edmonds Commodore Users Group  
Rick Ellis  
(206) 776-3539

Longview Commodore Users Group  
Dan Davis  
(206) 577-8224

East Seattle Commodore Users Group  
Erik Moseid  
(206) 883-7404

PET Users Group  
1800 Taylor Ave. N102  
Seattle, WA 98102

NW PET Users Group  
2565 Dexter N. 3203  
Seattle, WA 98109

Spokane Commodore User Group  
N. 4311 Whitehouse  
Spokane, WA 99205

World Wide User Group  
R. Smith  
P.O. Box 98682  
Tacoma, WA 98498  
(24-Hr. BBS: (206) 535-0574

Vancouver VIC/64 Users Group  
Bruce Qualman  
(206) 256-7206

Blue Mountain Commodore Users  
Jim Godfrey, Secretary  
550 South 2nd Ave.  
Walla Walla, WA 99362-3149  
(509) 529-4663

Central Washington Users Group  
1222 S. First Street  
Yakima, WA 98802



# The Guide

A Monthly Publication  
For  
Commodore™ Owners

Commodore support with a twist ... Personable and even humorous ... Timely news ... Helpful tutorials ... On-going support for several languages: BASIC (including BASIC 7.0 as featured in the new 128 PC), Machine Language, COMAL, Pascal ... Program Listings ... Extensive support of Telecommunications, including PlayNET and CompuServe ... *Honest* Software reviews ... and much more. ....

## Limited offer — FREE With Each Subscription !

Subscribe **NOW** to capitalize on free software offer!

Receive up to \$99.85 in high quality software!

With each year's subscription (or renewal) ordered, receive your choice of the software packages listed below, including the award winning educational games from Disney, or Omitem Terminal written by our own Bob Richardson.

Subscription	Rate	Canadian *	Receive FREE
One Year	\$18.00	\$24.00 (U.S.)	Any software title listed below
Two Years	\$35.00	\$47.00 (U.S.)	Any two of the titles below
Three Years	\$48.00	\$64.00 (U.S.)	All three of the titles below

\* Note: Canadian (and other foreign) subscribers must add \$2 (U.S.) per program title to cover shipping and handling. No handling charge for U.S. subscribers. Canadian rates listed in U.S. dollars — send U.S. funds only, please.

### Donald Duck's Playground

*CES Software Showcase Award Winner!* — Disney animation at its best! Children play four games to "earn" money to buy playground equipment. Builds money handling skills. Superb graphics. A bestseller! \$39.95 retail value.

### Winnie The Pooh In The Hundred Acre Wood

— Players explore the Hundred Acre Wood to find lost articles like Owl's books, Pooh's honey pot and Eeyore's tail, and return them to their rightful owners. Cheery music from the Disney movie caps off this computer rendition of the beloved classic. \$39.95 retail value.

### Omitem Terminal Program

Written by The Guide's own Bob Richardson. Fully supports the new 1660 Modem 300!

- User preferences automatically saved to master disk.
- Modem controls accessible from the keyboard
- Punter protocol — upload & download — 300/1200 baud
- Ten programmable function keys
- 15 number phone directory
- 20k receive buffer
- Tone or pulse dialing
- Auto dial/re-dial
- Half/full duplex

A \$19.95 retail value.

Disney offer only while supply lasts, so order now!

The Guide  
3808 S.E. Lincntra Ct.  
Portland, OR 97222

For Phone Orders, Call: (503) 654-5603

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State & Zip \_\_\_\_\_

Enter My Subscription for:

☐ 1 Year ☐ 2 Years ☐ 3 Years

Please Check One: ☐ New ☐ Renewal



Card # \_\_\_\_\_

Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_

You are entitled to one FREE software package, as described above, for each year's subscription purchased. Please list your second choice, as supplies are limited on the Disney titles! Please allow six to eight weeks for delivery.

My first choice is: \_\_\_\_\_

My second choice is: \_\_\_\_\_



**SPECIAL OFFER**  
**\$7.00**  
(NORMALLY \$19.95)

# Seeing Is Believing

---

"I don't have enough time or space to list all the good points!" -- *Noland Brown, MIDNITE SOFTWARE GAZETTE*

"This disk is fantastic!" -- *Tom Lynch, THE USERS PORT*

"Why all the enthusiasm? Because **COMAL** is a composite of the best features of the most popular programming languages... the familiarity of BASIC commands with the structural programming environment of Pascal and the turtle graphics of Logo." -- *Mark Brown, INFO 64*

"**COMAL** was just what I was looking for." -- *Colin Thompson, RUN*

---

Seeing **is** Believing. Take a look at what **COMAL** has to offer:  
the complete **COMAL 0.14 System** for Commodore 64™ includes the  
**Tutorial Disk\*** (*teaches you the fundamentals of COMAL*), plus  
the **Auto-Run DEMO Disk\*** (*demonstrates 26 COMAL programs  
including games, graphics, sprites and sounds*),  
all for just **\$7.00!**

You can add the reference book, *COMAL from A to Z*,  
for just **\$4.00 more.**

**\$7 or \$11** -- either way you're a winner!

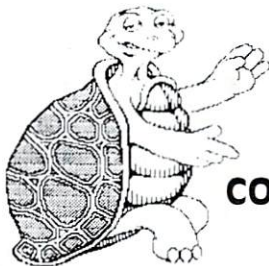
---

"Everybody who gets it, likes it! (I'll guarantee it.)" -- *Len Lindsay, President, COMAL Users Group*

---

**For more information or to place an order call  
(608) 222-4432. Visa or Master Card accepted; checks or  
money orders must be in U.S. dollars.**

**All orders pre-paid only - no C.O.D.**



**Send check or money order in US Dollars to:**

**COMAL USERS GROUP, U.S.A., LIMITED**

6041 Monona Drive, #103, Madison, WI 53716  
phone: (608) 222-4432

\*Programs will come on 2 disks or 1 double sided disk -- each disk includes COMAL.  
Commodore 64 is a trademark of Commodore Electronics



## I.E.A. Instant Editor Assembler for the Commodore 64

- ★ Written 100% in machine language
- ★ Assembles 17K source code in 5 seconds!
- ★ Co-resident editor assembler monitor
- ★ Compatible with HES MON
- ★ Slow-motion code analyzer
- ★ Technical assistance number

"IEA is a nice, simple assembler, good for beginners at an UNBELIEVABLE PRICE!"

*Jim Butterfield*

"...Should be called the POOR MAN'S MERLIN — a great assembler, and you can't beat the price."

*William B. Sanders*

*Author of Assembly Language For Kids*

"I would have to recommend the IEA Instant Editor Assembler, the BEST VALUE-FOR-PRICE development package on the market!"

*Jim Gracely*

*Technical Editor*

*Commodore Microcomputer Magazine*

**NOW  
ONLY**

**\$17.95**

## TURBO CALC/64

**A Great Beginner's Spreadsheet  
At an UNBELIEVABLE Price!!**

- 100% Memory Resident
- 100% Machine Code and P-Code
- 100% Menu Driven
- Over 13 K RAM for Data
- Large Matrix, 100 Rows x 26 Columns
- On-Line Help Screens
- On Screen Menu at All Times
- Full Printer Support
- Built-in Functions (SUM, AVG, MIN, MAX)

At last, a powerful, yet affordable spreadsheet!

**\$17.95**

**ONLY**

## Aquarian Software



## Nova Decoder 64 Version 3.0

A 6502/6510 Disassembler  
Designed for the Commodore User

**A MUST for anyone just learning Machine Language.  
A TREAT for those examining the operation of the C-64.  
A BLESSING to machine language programmers trying  
to de-bug their programs.**

- ★ Choose Screen or Printer Options
- ★ Addresses Printed in Either Hex or Decimal
- ★ Complete Calculations of Branch Commands
- ★ Brief Explanations of Each Command Encountered
- ★ Generates Tables of Zero Page Addresses Used, Branch Addresses, All Jump Routines, and More ...

**Only \$19.95**



## Disk-Lock V2.1

At Last! A professional copy protection system is available to YOU. Now you can protect your programs from most copy programs!

- Disk-Lock is Designed to Prevent Full Disk Copies.
- Stops Over 90% of All Copiers
- Offers Multiple Protection Schemes
- Place Protection on Any Track From 1 to 40!
- Fully Menu Driven

**Only \$39.95**

## BOOKS !

Easy Script© Simplified.....	\$5.00
Printer Codes and Interfaces.....	\$5.00
1541 Revealed.....	\$5.00
Programming Development Language.....	\$5.00
I'm Sorry, But I Don't Speak Hexidecimal.....	\$5.00
1541 Survival Guide.....	\$5.00
Computer Talk.....	\$8.00

**Call For Details**

**Aquarian Software**

P.O. Box 22184  
Portland, OR 97222



To Order, Call: (503) 654-2641  
VISA and MasterCard Accepted  
Add \$3.00 Shipping and Handling Per Order  
Dealer Inquiries Welcome !





# WHEN PRINTING MEANS BUSINESS, YOU NEED A PRINTER WHO KNOWS HIS.

The senior account managers at Times Litho have learned their business from the most demanding teacher of all—experience. Among them, they represent nearly seventy years with our firm. They know our capabilities with a special insight that comes from having helped shape them. They are backed by a production team with an equally impressive record of service.

At Times Litho we offer a com-

plete print production facility. Speed, quality and economy are assured by our heat-set web presses supported by in-plant prep and bindery. Taken alone, our plant is almost—but not quite—unique. Consider our ability to attract and hold first-rate people, and we believe you will agree—we are unique.

For a publisher, printing means business in the most direct sense. That's why we are proud of the fact

that more than forty publishers rely on us for the timely delivery of their products. The magazine you are reading is an example of our work.

If printing means business to you, give us a call. We know our business.



**times litho inc.**

648-7165